

**A HOLISTIC APPROACH TO THE ONTARIO CURRICULUM:  
MOVING TO A MORE COHERENT CURRICULUM**

**by**

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**A thesis submitted in conformity with the requirements  
for the degree of Master of Arts  
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**Master of Arts, 2009**

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## **Abstract**

This study is an interpretive form of qualitative research that is founded in educational connoisseurship and criticism, which uses the author's personal experiences as a holistic educator in a public school to connect theory and practice. Key research questions include: How do I, as a teacher, work with the Ontario curriculum to make it more holistic? What strategies have I developed in order to teach a more holistic curriculum? What kinds of difficulties interfere with my practice as I attempt to implement my holistic philosophy of education? This dissertation seeks to articulate a methodology for developing holistic curriculum that is in conformity with Ontario Ministry guidelines and is also responsive to the multifaceted needs of the whole student. The research findings will serve to inform teachers who wish to engage in holistic education in public schools and adopt a curriculum that is transformative while still being adaptable within mainstream education.

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## **Dedication**

For my husband, Brian and my children, Sean and Matthew  
You are a source of inspiration and joy  
In every moment of my life

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## **Chapter One**

### ***A Study in Holistic Education***

*There is no keener revelation of society's soul than the way it treats its children.*

*-Nelson Mandela*

This statement from Mandela has been attached to my inquiry from the beginning. I have felt the restlessness of the need to understand how to teach children in a meaningful way and to explore different teaching approaches in order to teach children well and treat each child as a unique individual with his / her own special gifts that he / she brings. It is in holistic education that I, as an educator, have found my home. I was first introduced to holistic education during my graduate studies at the Ontario Institute for Studies in Education (OISE) and quickly realized that I had always been a holistic educator, even before I was familiar with the term. I had intuitively always taught children in a holistic manner using an integrated approach to curriculum and cooperative learning techniques. The focus of this study is to examine my teaching practice and my work with the Ontario curriculum over the last five years when I taught in a public alternative elementary school in Toronto, Ontario. My study focuses mainly on a group of students that I taught for four years from Grades 3 to 6.

As a teacher in an alternative school with the Toronto District School Board (TDSB), I have enjoyed a fair amount of flexibility and freedom in how I implement and deliver the Ontario curriculum. As a result of not being in a mainstream school, I have had the opportunity to incorporate many of the principles of holistic education into my teaching practice. Furthermore, in



September of 2007, I joined an advisory board, consisting of Professor John Miller from OISE, other holistic educators like myself, and interested community members that successfully petitioned the TDSB to establish a new public alternative elementary school informed by a holistic philosophy. The advisory board met once a month to establish standards with respect to holistic curriculum, holistic teaching and holistic teacher development for the prospective holistic public school. The advisory board is a functioning board that provides ongoing advice and guidance to the school's executive committee with respect to establishing authoritative standards for holistic curriculum, teaching and teacher development. This landmark holistic school, Whole Child School (n.d.), inscribed in public education will open its doors in September 2009 and it is committed to nurture and educate children through an arts-integrated, experiential-learning, holistic curriculum with a focus on subject connections, body-mind connections, community and earth connections. Therefore, these two main practices that I was involved in: the work I did in my classroom to make it holistic and my collaboration with others sharing in the vision of wholeness in order to establish the first holistic school in public education in Toronto led me to contemplate and reflect on what it means to be a holistic teacher and how it is possible to integrate mainstream public education policies and holistic education ideas so that the two can complement each other and coexist in harmony. Broadly, this dissertation is an inquiry into how holistic teaching and learning can be introduced into the normative boundaries of traditional education and transform that learning environment into one that can be categorized as holistic.

***Context of the Study***

The school where this study takes place is an alternative, bilingual, elementary public school in Toronto. The original school began as a private school where teachers were paid with donations made by parents. It first opened in September 1977 with thirty students. Parents and staff at the school are committed to French language instruction and ensuring that students realize that French is a living language. Students begin work in their mother tongue and gradually more and more French is used in the classroom until Grade 6 when students spend half their day learning through the French language medium and the other half of the day is spent learning curriculum in English. The school was formed on the principles of bilingualism, multiculturalism, child-centred, experiential learning experiences and social justice issues. This school is successful due to the high level of commitment by the parents. There is a strong focus on community and cooperation in the classroom. Collaboration among students is nurtured rather than competition. The parents are highly committed to issues of social justice, peaceful schools as well as Ecoschools and often run many extracurricular activities for students such as the Green Club that plants flowers and vegetables in the Spring and teaches students about gardening. The parents have also created an outdoor classroom for teachers where they can teach students about ecological issues. In addition, parents also organize many fundraisers in order to bring in visiting artists and performances that add a lot of soul to the school.

It is clear from the abovementioned description of the school where this study takes place that there are many commonalities between the guiding philosophy that underpins this alternative school and the principles upon which holistic education is based: strong community connections, commitment to experiential learning and ecological issues, focus on cooperation and attention to social justice. This is perhaps one of the reasons why the introduction of a customized holistic curriculum specific to the needs of this community that synthesized the best practices of holistic education and was in accordance with Ontario Ministry guidelines meshed so seamlessly with the standardized curriculum and only caused a few noteworthy tensions that I will address in chapter seven. Everyone was on board with holistic education: parents, principals (over the five years that I taught at this school, we had three different principals all of whom supported my holistic vision of education), staff, and students and there was not as much resistance as there might be in a more conventional public school.

### ***Background of the Study***

I come to this study as both a participant and researcher seeking to understand how it is possible to teach and learn within the unique context of holistic education in the public sector. This inquiry follows from an interest in first, applying holistic methodologies in the public school system and secondly, understanding and articulating my own journey of professional development in implementing a public holistic model of education. For the most part, the implementation of holistic education has been primarily instituted in the private

sector. There are a handful of highly successful examples of private holistic pedagogies including Waldorf, Montessori and Reggio Emilia. Their collective success is inspiring. On the other hand, the application of holistic methodologies in the public system is still relatively limited and, as a result, there is a slim body of research related to holistic education in the public educational system.

Perhaps I can be described as a hopeless romantic or a social idealist since I believe that the outstanding results that holistic education brings about in the private sector should be accessible to ***all*** children, irrespective of social or economic status. It is this unyielding optimism that led me to incorporate elements of holistic education into the standardized curriculum that I taught as a public school teacher. This dissertation is the story of my practical experiences with holistic education in my public school setting and in relationship to my students, my colleagues and my community. In reflecting and writing about the unique demands of my personal context, I have gained some significant insights into holistic education and curriculum development. I believe that this inquiry into my unique situation can benefit other educators who share in the vision of wholeness and seek to implement holistic theory into public education contexts. It is my hope that my holistic teaching experiences have potential to open dialogue, raise questions and spark further reflection and research into holistic education in the public sector.

This inquiry stems from a vision for education that embraces every aspect of each student's capacity for learning. As a result of my constant reworking of the Ontario curriculum in order to reconcile my holistic vision of education with

the Ontario Ministry guidelines, in an effort to better meet the needs of the students whom I teach, and due to my affiliation with a new proposal for a holistic elementary school inscribed within public education, I was driven to examine the Ontario curriculum more closely and consider its potential to be a more holistic document. My exploration of holistic teaching and learning within the confines of public policy is recorded in the following way. Following this outline of the purpose, potential contribution and context of my dissertation, I contextualize this study relative to the related literature on holistic education in chapter two. In chapter three, I discuss the rationale for my choice of research methodology and describe my inquiry process. In my research, I show that the current Ontario curriculum demonstrates numerous contradictions and lacks coherence. On the other hand, I demonstrate that a holistic approach to education is far more coherent and enables students along their learning journey. In this inquiry, I show that the contradictions present in the Ontario curriculum document allow teachers to create a space within the Ontario curriculum to teach a holistic curriculum. I examine three main aspects that facilitate holistic learning in this study derived from a critical analysis of holistic theories, integrated with and distilled through my own practical experiences. These are:

1. Aspects of the teacher which I examine in chapter four
2. Aspects of the students which I examine in chapter five and
3. Aspects of the curriculum which I examine in chapter six

In chapter seven, I further examine holistic education and the Ontario curriculum in light of the tensions that exist between the two and the ensuing challenges that

this poses for the holistically minded teacher. Finally, the thesis concludes in chapter eight with a discussion about the implications of the research and its findings, and considers directions for further research.

## **Chapter Two**

### ***A Review of the Literature***

This chapter is designed to contextualize this study relative to the related literature in holistic education. While there appears to be a relatively large body of literature, which explores the theoretical framework underlying holistic education, there is relatively less research that directly examines the work of educators implementing holistic education theory into practice in school settings, particularly in the domain of public education.

#### ***Holistic Education***

Before examining the literature related to this approach to pedagogy, it is important to first define the term *holistic education*. What is holistic education?

John Miller (2006) states that:

Holistic education is an approach aimed at teaching the whole person. Holistic educators reject educational approaches that limit learning solely to the intellect or that train students so that they can compete in a global economy. They believe that we must see the student as a complete human being, which includes a mysterious, timeless quality (e.g., the soul). Holistic educators argue that schooling limited to preparing students to compete in a global economy is lacking in this respect. (p. 101)

According to J.P. Miller (2005),

Holistic education attempts to nurture the development of the whole person. This includes the intellectual, emotional, physical, social,

aesthetic, and spiritual. Perhaps the defining aspect of holistic education is the spiritual. (p. 2)

Therefore, as John Miller (2005) points out, what distinguishes holistic education from traditional educational practices is the spiritual dimension. Holistic education seeks to nurture children in educational settings as fully as possible and is not limited to developing only the rational intellect.

Ron Miller (1992) also places an emphasis on the wholeness of the human experience in his writing about holistic education. R. Miller (1992) tells us:

Holistic educators recognize that all aspects of human life are fundamentally interconnected. They contend that education must be concerned with the physical, emotional, social, aesthetic / creative, and spiritual qualities of every person, as well as the traditionally emphasized intellectual and vocational skills. They argue that our present culture's emphasis on rational intellect, economic development, competition, and the uncomplaining performance of social roles is lopsided. To be 'well educated' in the modern industrial world, means to be well disciplined; it is to be alienated from one's own spontaneous, creative, self-actualizing impulses. Holistic education calls for a new recognition of the organic, subconscious, subjective, intuitive, artistic, mythological, and spiritual dimensions of our lives. (p. 153)



Another author, Scott Forbes (2003), has written that:

Holistic education frequently claims that it wants to, 1) educate the whole child (all parts of the child), 2) educate the student as a whole (not an assemblage of parts), and 3) see the child as part of a whole (society, humanity, the environment, some spiritual whole, etc.) from which it is not meaningful to extract the student. (p. 2)

From examining the literature, a key theme of holistic education that emerges is that the purpose of education is to develop the whole child – all aspects of his / her being -- in order that he / she may live life to its fullest in society.

Holistic educators are concerned with the whole child, the whole human being, or the whole person. Ron Miller (1991) interviewed 60 holistic educators and concluded that the concept of whole person contains six essential elements: intellectual, emotional or affective, physical, social, aesthetic, and spiritual (pp. 25-26). John Miller (2005) considers that the development of the whole person in holistic education also relates to the same elements discussed by Ron Miller (1991). Traditional education has dealt with the intellectual element. John Miller (2005) tells us that progressive and humanistic educations have dealt with the first five elements, but generally ignored the last, and perhaps most significant element: the spiritual element.

Another key theme that emerges from the literature is that holistic education recognizes the importance of nurturing the spiritual development of children in educational settings. Ron Miller (1991) summarizes this idea clearly

when he states, “Holistic educators recognize that there is a part of every person that is ‘immutable and mysterious’ – an inner core that lies beyond the physical, social, and other sources of personality” (p. 26). The attention that holistic educators give to developing the spiritual dimension of children’s personality is one of its most essential characteristics and it also sets holistic education apart from mainstream education.

In his writing, Ron Miller (1991) describes levels of wholeness that are important to holistic education. He proposes five levels: the person, the community, the society, the planet, and the cosmos (R. Miller, 1991, p. 25). Ron Miller (1991) contends that there needs to be human wholeness, but also wholeness in the community. He tells us that holistic education is concerned with “the *quality* of human relationships within a community” (R. Miller, 1991, p. 26). Ron Miller (1991) also advocates that there should be holism in society, which should empower the person and the community. Another level of wholeness is the planet. Holistic educators are concerned with global and ecological issues. Finally, there is the wholeness of the cosmos. This again relates to the spiritual dimension of human existence that I discussed earlier.

Ron Miller (1991) summarizes the levels of wholeness that are characteristic of holistic education in the following passage:

An individual person is a whole system, but is contained in community, which is a more inclusive (more whole) system. But then community is surrounded by, and infused with, and given meaning by, the affairs of the larger society; and any given society

is but one member of the global family of humanity; and finally, even the human species as a whole, along with its host planet, is contained in the all-embracing wholeness of the cosmos, the Absolute, the scope of which we cannot fathom. (p. 28)

Holistic theory emphasizes the essential oneness of creation and that the universe resides within every human being. Holistic education attempts to provide teaching and learning that is broadly conceived and inspires reverence for life.

John Miller (1996) describes three basic principles of holistic education: connectedness, inclusion, and balance. Connectedness refers to facilitating connections at every level of learning. Some of the connections that John Miller (2005) discusses are “integrating analytic and intuitive thinking, linking body and mind, integrating subjects, connecting to the community, providing links to the earth and connecting to soul and spirit” (p. 2).

Inclusion refers to including students of differing cultural backgrounds and varying levels of ability in one’s teaching practices without labelling them and applying a wide range of pedagogical tools and approaches to teach these students. In a holistic classroom, the teacher is able to use different teaching methodologies to promote student learning and links together three educational orientations: transmission, transaction and transformation. Transmission learning is concerned with passing on knowledge from the teacher to the student, mastery of content and basic skills. Transactional learning is more interactive, although that interaction is mainly at the rational level. It is concerned with the

development of problem solving and decision making skills. Finally, transformational learning recognizes the wholeness of human beings and aims to provide personal integration with the curriculum as well as social awareness. The transformative position recognizes the importance of all ways of knowing and it is inclusive of the other two positions (J.P. Miller, 1996). As one can see, inclusiveness is another important factor in holistic education. In a holistic classroom, all three types of instruction have their place. In fact, John Miller (1996) has said that, "As long as the form of learning does not discriminate or diminish the individual in any way then it should be included" (pp. 7-8).

Lastly, balance refers to the complementary forces and energies of the universe that need to be recognized (J.P. Miller, 2005). Some of the polarities in need of balance in the classroom that John Miller (1996) describes are, for example, rational thought and intuition, individual competition and group collaboration, quantitative assessment and qualitative assessment, focus on content and focus on the learning process.

John Miller (1996) offers a definition of holistic education that explores a variety of relationships. He states that:

The focus of holistic education is on relationships: the relationship between linear thinking and intuition, the relationship between mind and body, the relationships among various domains of knowledge, the relationship between the individual and community, the relationship to the earth, and the relationship between self and Self. In the holistic curriculum the student examines these relationships

so that he or she gains both an awareness of them and the skills necessary to transform the relationships where it is appropriate.

(J.P. Miller, 1996, p. 8)

Holistic education is a student-centred approach to teaching and learning in which students learn to see relationships between themselves and their environment, and between themselves and all areas of the curriculum. The emphasis is on the whole student as the teacher recognizes that intellectual development cannot be isolated from emotional, social, physical, and moral development.

Traditional education has focussed on rational thinking and learning at the intellectual level. Holistic education is concerned with the whole person and recognizes that all aspects of life are interconnected and that human experience is integrated. In order to ensure the healthy development of each child, the holistic educator does not isolate any aspect of students' lives. Holistic educators recognize that students do not simply learn through their intellects, but through their feelings and concerns, their imaginations and their bodies. In planning and implementing curriculum, holistic educators attend to all aspects of each student's development, such as his / her:

- ❖ Spiritual growth
- ❖ Emotional well-being
- ❖ Artistic creativity
- ❖ Moral decision making
- ❖ Social competency

- ❖ Intellectual growth, and
- ❖ Physical wellness

(Waterloo Region Roman Catholic Separate School Board, 1993, p. 4)

Traditional education has focussed mainly on preparing students for competing in the global economy and society. Students have typically learned skills and competencies to help them survive or thrive in the workforce and society at large. Holistic education, on the other hand, contends that education should not focus on the narrow, final product of learning, e.g., one's ability to graduate from school and find a job, but rather on the broader-scoped, process of learning, e.g. one's engagement and commitment to learning, and thus develop students' potential for becoming lifelong learners. Ron Miller (1992) rightly states "education, as John Dewey so eloquently argued, must not be seen as 'preparation' for life – it *is* life. Education is growth, discovery, and a widening of horizons" (p. 57).

Holistic education is not a new age concept, but has been around for some time. Similar to holistic education, in Dewey's (2004) *My pedagogic creed*, he alludes to the need to develop the whole child. Dewey (2004) states,

I believe that the subject-matter of the school curriculum should mark a gradual differentiation out of the primitive unconscious unity of social life...The true centre of correlation of the school subjects is not science, nor literature, nor history, nor geography, but the child's own social activities. (p. 20)

In his book, *Democracy and education*, Dewey (1916) also underscores the importance of teaching school subjects in an interdisciplinary manner, which is at the heart of holistic education. He argues that man and nature are intimately connected and advocates for the importance of teaching science and literature in a cohesive, interconnected fashion. According to Dewey (1916), it is more realistic to teach these subjects in connection with each other. Dewey's (1916) comments from nearly a century ago articulate one of the main premises of holistic education, that teaching and learning must be integrated across the school curricula. Dewey (1916) argued that it was not realistic to teach naturalistic studies, associated with nature and the physical sciences, separately from humanistic studies, associated with man, language and literature. He strongly believed that it was artificial to create this separation. This view is present in holistic education, which seeks to educate the whole learner and to integrate knowledge and learning across all subjects rather than compartmentalize knowledge into fragments and isolated subjects. Dewey (1916) argued that teaching the sciences and the humanities separately resulted in superficial learning. I would add here that isolating subjects in the curriculum results in a very narrow type of learning that makes it difficult for learners to effectively integrate their understanding and apply their knowledge to a real world context.

The "intellectual precedents" of holistic education can also be "traced through the works of Rousseau, Pestalozzi, Froebel, Jung, Maslow, and Rogers, however, holistic education, as a movement, emerged in the late 1970's in

response to the predominant ideologies of modern educational policies and practices” (Forbes, 2003, p. 5). More recently, brain based research and Howard Gardner’s (1993) theory of multiple intelligences support holistic education. It has become more obvious that “human beings, children as well as adults, learn in a variety of ways, involving physical activity, imagination, emotional concern, and implicit connections to their physical and social (and spiritual) environments” (R. Miller, 1992, p. 157).

### ***Curriculum Movements***

If we examine the work of curriculum writers, it is possible to see that, in general, they all seem to agree that schools serve specific social purposes and that the curriculum should reflect this. Furthermore, some curriculum movements have characteristics of a holistic program. Similar to the proponents of holistic education, Beane (1995), the curriculum writer, proposed a coherent curriculum while Kincheloe (2003) argued for interconnectedness. Beane (1995) writes that,

A “coherent” curriculum is one that holds together, that makes sense of the whole; and its parts, whatever they are, are unified and connected by that sense of the whole.... It is not simply a collection of disparate parts or pieces that accumulate in student experiences and on transcripts. A coherent curriculum has a sense of the forest as well as the trees, a sense of unity and connectedness, of relevance and pertinence. Parts or pieces are connected or integrated in ways that are visible and explicit. (p. 3)

He further states that,



When the curriculum offers a sense of purpose, unity, relevance, and pertinence – when it is coherent – young people are more likely to integrate educational experiences into their schemes of meaning, which in turn broadens and deepens their understanding of themselves and the world. In that sense, we might say that a coherent curriculum is one that offers unforgettable experiences to young people. (Beane, 1995, p. 4)

Beane's (1995) writing on the curriculum is analogous to the principle of creating conditions for timeless learning which John Miller (2006) describes in his book, *Educating for wisdom and compassion*. These conditions are fundamental in holistic learning and I shall analyze some of them in greater depth later on in my study. Similar to holistic education that focuses on the whole child, Beane (1995) recommends connecting the curriculum to students' experiences, taking into account who young people are and recognizing and honouring diversity. Beane (1995) and Kincheloe (2003) both raise the issue of the importance of connecting the learning experiences of learners within the curriculum. This notion is at the heart of holistic education and can be seen in the writing of John Miller (1996, 2000, 2005, 2006) in relation to holistic learning.

According to John Miller and Drake (1990), "A holistic approach can be incorporated into public school practice. The necessary ingredients are a holistic vision of education, a recognition of the intrinsic connections in experience, and a staff working together to nurture the healthy development of young people" (J.P. Miller & Drake, 1990, p. 27). John

Miller (1996) emphasizes the importance of relationships in holistic education. He describes six *connections* that may be explored in the curriculum, which ultimately drive the curriculum in a holistic school.

These *connections* or *relationships* are as follows:

1. Relationship between linear thinking and intuition
2. Relationship between mind and body
3. Relationships among domains of knowledge
4. Relationship between self and community
5. Relationship with the Earth
6. Relationship between self and Self

(J. P. Miller, 1996, pp. 86-87)

The above-mentioned relationships or connections can be used as a pedagogical orientation or method to approach the Ontario curriculum in order to make it more holistic.

John Miller (1996) writes “The holistic curriculum has its roots in the consciousness of teachers who are authentic and caring” (p. 174). In his work, John Miller (1996) describes different ways in which teachers can become in touch with their “center” and teach “from the Self” (p. 178). According to John Miller (1996), the authentic presence of the teacher is fundamental to holistic education.

Holistic education is an educational movement that is growing. It is not a neat curriculum package nor can it be summed up by a specific technique but rather, it draws from various educational trends, theories and practices. As

Forbes (1996) remarks, “The Holistic Education movement does not have a single source, a predominant proponent, or major form of expression.

Consequently, it is difficult to define holistic education” (p. 1).

Similarly, John Miller (2005) states, “Holistic education cannot be reduced to a set of techniques or ideologies. Ultimately holistic education rests in the hearts and minds of the teachers and students” (p. 3). In chapter four, I will examine what makes a teacher holistic and I will examine my own journey as a holistic educator. In chapter five, I will examine how teachers can educate the whole student in school settings and how I did this in my teaching practice.

A review of the literature leads one to conclude that holistic education cannot be readily reduced to a set of principles and practices. Ron Miller (2000) has repeatedly asserted, “There is no one correct method of holistic education. By definition, an education for spiritual evolution is a creative, transformative, self transcending engagement between person and world” (p. 14).

A review of the literature also reveals that there is little research on the empirical aspects of holistic education and that there is a need for further research on how teachers actually implement holistic education ideas into practice. The goal of this dissertation is precisely that: to share my personal reflections as I attempted to implement holistic theory in education into practice in the public school where I taught. This dissertation is the story of how I put the ideas behind holistic education into practice in my classroom. I believe that educators need to reclaim their authority with respect to educational theory and one way to do this is to tell their stories and document their reflections.

As an educator, I acted on my beliefs about holistic education and changed my teaching practice. Although my experience does not exemplify all of the holistic characteristics described above, I took a holistic approach towards the Ontario Ministry guidelines and transformed my classroom into a more holistic setting by viewing teaching and learning with a mind open to all ways of learning, free from fragmented lists of competencies and crippling bureaucracies. My project is personal and local. It was developed as a result of my very personal need to feel fulfilled in the work that I did every day with children. It came about as a result of the deep care, commitment, love and trust I have always felt towards children and the care-givers who entrust their education to me. It is holistic in nature because it took action to bring about changes at three main levels: the teacher, the students and the curriculum and these changes were interconnected and occurred simultaneously.

As a teacher, I worked on myself to become more holistic. I approached and implemented the Ontario curriculum using the principles of holistic theory in education by integrating subjects in the curriculum, promoting greater interaction between students and the curriculum as well as students and the school community, the local community, the global community and the earth. I also encouraged students to work on themselves so that they could become more holistic and I gave them many opportunities in the classroom setting to develop the multiple aspects of their humanity, including the spiritual dimension. I will have more to say about these three main holistic practices in the following chapters.

## Chapter Three

### ***Research Methodology***

*We shall not cease from exploring  
And the end of all our exploring  
Will be to arrive where we started  
And know the place for the first time.  
(Eliot, 1944, p. 48)*

#### ***Selecting my Research Methodology***

I feel that Eliot's (1944) poem captures the essence of my feelings about educational research. It is a cyclical and spiral process. As a learner of holistic education, I began to explore myself. Through this exploration, I learned more about the teacher within and this led me to explore new ways of knowing and learning with my students in the classroom which inevitably led me to reflect on the curriculum that I taught, how I taught it and why. And, as the poem so eloquently tells us, I came full circle to where I started: a teacher faced with the task of teaching a prescribed curriculum, but I approached it in a completely different manner. By this I mean that as I learned more about holistic education, I learned more about myself and it became evident to me what was important to teach and how to do this. This renewed me as an educator and it renewed my teaching practice.

I believe that theoretical understanding is strengthened by connection to action in the practical work of professionals in schools. My hope is that this research can bridge theory in holistic education and its practical application in a public school setting. In this dissertation, I attempt to connect practical experience and research to articulate a responsive model of holistic education that is not defined by a prescribed set of pedagogical strategies or list of

expectations to achieve, but rather a diversity of activities based in openness, trust, learning, balance, inclusiveness, connections, relationships and reflexivity.

In this chapter, I begin by describing the process through which I came to select a methodological approach for this study. I searched for a way to incorporate my professional experience and learning. I was exposed to many different research methodologies, and finally found one that allowed me to use my personal practical knowledge to explore the theoretical framework underlying holistic education. I discovered an interpretive, qualitative form of inquiry that is founded in educational connoisseurship and criticism, and uses the data provided by my experiences as a holistic teacher working with the Ontario curriculum. In this chapter, I outline my research methods, my data sources, my data analysis and interpretation, as well as the significance of my research.

### ***Research Methods***

The methodological approach for this study that I use is a qualitative research methodology since this study focuses on my own holistic philosophy of education and how I implement my conception of holistic education in my practice as a teacher. My study focuses on my practice as a holistic teacher in a public alternative elementary school working within the boundaries of the Ontario curriculum. I endeavour to utilize and analyze my own experiences and knowledge through a self-reflexive, interpretive inquiry. The research method that I use is educational connoisseurship and criticism, using personal experiences and stories of my educational practice as data. I perform a case study on myself and demonstrate that there is indeed a space to teach a holistic

curriculum within the Ontario Ministry guidelines. I reflect on some of the strategies I developed and implemented in order to deliver the Ontario curriculum in a more holistic manner and examine some of the challenges that I faced as a holistic educator working in a public school. In this section, key elements of educational criticism and personal experience are presented in order to show their relevance for my study.

### ***Educational Connoisseurship and Criticism***

Educational connoisseurship and criticism is a research method that is based in practice. It is naturalistic, interpretive, descriptive, detailed and uses the researcher as “instrument” (Eisner, 1991, p. 33). Eisner (1991) tells us “The primary function of the critic is educational. By ‘educational’ I mean providing the material through which perception is increased and understanding deepened. To do this the critic must be able to function as a connoisseur (p. 86). This type of qualitative research is inscribed within the perspective of the individual and, as in all interpretive research designs, subjectivity is acknowledged throughout the research process. Subjectivity is “the quality of the investigator that affects the results of observational investigation” (Peshkin, 1988, p. 17). When researchers engage in educational criticism, they study educational contexts and issues through the lens of their own personal knowledge, experience, and expertise, which guides and informs their study. They recognize their personal subjectivity and value their connoisseurship. This is the process that I intend to undertake in this study, which focuses on my holistic teaching experiences working with the Ontario curriculum in a public school.

The educational connoisseur works within a framework of personal experience and understanding. I hope that I am equipped to serve as a connoisseur and critic in this study by the perspective and knowledge drawn from ten years as an educator in a variety of educational settings, five of those years in a public alternative school, along with extensive study and reading in the area of holistic education.

Eisner (1991) describes four stages in educational criticism: description, interpretation, evaluation, and thematics. These phases are interconnected and constitute a holistic form of research that gives unity to the inquiry and offers openness to the complex nature of studying schools and teaching. Educational connoisseurs and critics must be able to select what is significant in their experience and knowledge, offer evidence and reasons for their selection of what is significant and their interpretations that result from these informed selections. In my study, I use my reading on holistic education and analysis of my experience in delivering a holistic curriculum to students to guide my discussion. I draw attention to key aspects of holistic education in order to encourage further appreciation, thought, discussion and action around delivering a more holistic curriculum. I serve as a medium for the description and interpretation of the data and fully recognize the strength as well as the limitations of using my self as research instrument.

### ***Using Stories and Personal Experiences***

Narrative inquiry has a long history in studies of educational experience. As Connelly and Clandinin (1990) indicate, "The main claim for the use of



narrative in educational research is that humans are storytelling organisms who, individually and socially, lead storied lives” (p. 2). As Carter (1993) rightly notes, over the past several years, more and more educational researchers

Have been telling stories about teaching and teacher education rather than simply reporting correlation coefficients or generating lists of findings...these stories capture, more than scores or mathematical formulae ever can, the richness and indeterminacy of our experiences as teachers and the complexity of our understandings of what teaching is. (p. 5)

Mary Beattie (2004) explains that:

Narrative inquiry provides a holistic and unified orientation to professional learning, curriculum development, educational reform, and educational research: a way of studying and representing practitioners’ knowledge, a way for researchers and practitioners to learn from and with each other, and ways to bring the voices from inside schools into the arenas of educational research and policy making. (p. 134)

Connelly and Clandinin (1988) use the term “personal practical knowledge” (p. 25) to give value to a teacher’s knowledge of a classroom. These researchers define “personal practical knowledge” as “a term designed to capture the idea of experience in a way that allows us to talk about teachers as knowledgeable and knowing persons” (Connelly & Clandinin, 1988, p. 25). They add that personal practical knowledge is in the teacher’s past experience, in the

teacher's present mind and body, and in the future plans and actions. Personal practical knowledge is found in the teacher's practice. It is, for any teacher, a particular way of reconstructing the past and the intentions of the future to deal with the exigencies of a present situation (Connelly & Clandinin, 1988, p. 25).

Both methodologies: Connelly and Clandinin's (1988) personal practical knowledge and Eisner's (1991) educational connoisseurship, value the participant as reflective and equipped with meaningful knowledge, stories, experiences and expertise.

In this dissertation, I study my own experiences in delivering a holistic curriculum inscribed within the boundaries of the Ontario curriculum, believing that the general may be seen in the particular. As an educational critic, I fully recognize the personal nature of my knowledge and I consciously and explicitly share my context and my individual viewpoint as I draw upon my own experiences and life as sources of data. By reflecting upon my own experiences in this study, I believe that my understanding may be communicated to others who may also come to better understand not only my experiences, but their own experiences as well. I believe that there is merit in close reflection of one's own experience and context.

There are several studies where researchers focus their inquiry on one teacher. In her book, *Constructing professional knowledge in teaching*, Mary Beattie (1995) uses narrative inquiry to study the professional development of a single teacher – Anne Courtney. Beattie's (1995) study focuses on the professional growth and development in this individual teacher's teaching as a

result of her changing teaching assignment. Anne Courtney spent 26 years as a physical education teacher and, six years before her planned retirement, she requested a change to a Grade 8 classroom. Beattie (1995) examines Anne's story of this major change in her teaching career and life. Beattie (1995) reflects that this shared collaborative research process, allowed her not only to make meaning of Anne's story but it also gave her the opportunity to reconstruct her "own understanding of teaching, learning, professional relationships", and helped her gain "new insights into research as professional development" (p. 136).

Connelly and Clandinin (1988, 1990) have written extensively about teachers' stories, of the experiences of teachers and teaching in schools. Teachers' stories are "personal accounts by teachers of their own personal classroom experiences...teachers' stories have been extensively reported to capture the lives of teachers as professionals and to examine learning in classrooms" (Creswell, 2002, p. 524).

Connelly and Clandinin (1988) have used the stories of individual teachers as data sources in narrative inquiry. In their book, *Teachers as curriculum planners: Narratives of experience*, Connelly and Clandinin (1988) use teacher narratives as a tool to reflect on curriculum, teaching and what goes on at schools. In one chapter, they worked with a Grade 1 teacher, Stephanie, and examined her classroom planning from a narrative perspective. They gave an account of the way in which Stephanie's "rhythm is grounded in her past and is embedded within cultural and historical narratives" (Connelly & Clandinin, 1988, p. 169). Connelly and Clandinin (1988) use Stephanie's stories in order to better

understand classroom planning and how teachers learn to plan. In another chapter, the same authors work with the same teacher to study curriculum planning as curriculum inquiry. They focus on Stephanie's planning in language arts and the ways in which her planning is a kind of inquiry that leads to curriculum reform. Connelly and Clandinin (1988) examine accounts of Stephanie's process of planning and note that this inquiry extends into the past, present and future since Stephanie began to question the ways she was teaching reading, had always taught reading in the past and examined possible ways that she might teach reading in the future. Using a narrative approach, Connelly and Clandinin (1988) work with Stephanie to show how the process of planning as inquiry is linked to her personal practical knowledge. The same authors work with a school principal, Phil Bingham and examine his stories as a way of understanding the way he administers an inner-city school, Bay Street School. Connelly and Clandinin (1988) found that "Phil's personal narrative is embedded within the cultural and historical narratives of his immigration to Toronto as the son of Irish parents, the Toronto School Board, inner-city Toronto schools, and more generally Ontario education" (p. 76).

Kathryn Broad (2004), in her doctoral dissertation, *Leading to learning: Towards a model of transformative leadership in schools*, did an intensive study of her own personal practice and experiences as an elementary school principal and vice-principal. She reflects on the continual learning that she engaged in while working as a principal. Her work combines educational connoisseurship and criticism with narrative inquiry to develop a model of transformative

educational leadership. This doctoral dissertation is an example of the work of one individual whose experiences and reflections can have meaning and value for others.

In my own study, I examine my professional development as a teacher when I embraced a holistic view of education and the ways in which I worked with the Ontario curriculum in order to develop a holistic curriculum for the students whom I taught. Similarly to Broad's (2004) study, I believe that my own experiences in working with the Ontario curriculum to deliver a holistic curriculum may have meaning and value to others, particularly those who espouse a holistic vision of education.

### ***Data Sources and Analysis***

My personal experiences as a teacher in an alternative, elementary public school in the Toronto District School Board are sources of data. I glean evidence from my planning and teaching practice, stories and reflections written for courses and this thesis, from personal journal entries, from papers that I wrote for courses in my Master's program and critical incidents that demonstrate the challenges that I faced as a teacher practitioner with a holistic vision of education and how I worked with the Ontario curriculum in order to deliver a program that was consistent with my holistic philosophy of education as well as the policies mandated by the Ontario Ministry of Education. I will move between my personal stories and theory in holistic education in my description and analysis. And I will discuss my learning and professional development in light of the related literature in holistic education.

In my study, I examine how I as a teacher worked on my “self” in order to become more mindful, present and caring. Palmer (1998) and John Miller (1996, 2000, 2005, 2006) have written extensively about the role of the teacher in teaching with a holistic approach. Both underscore the importance of certain qualities that can be nurtured and developed. John Miller (2006) believes that in order to bring timeless learning into public school classrooms, then it is necessary for teachers to explore various practices to help them become more “present, mindful, and caring” (p. 135). In this study, I examine the practices I embraced and reflect on how they impacted my teaching.

Another important aspect of holistic education is to develop contemplation and mindfulness in classrooms. In this dissertation, I examine some of the practices that I developed with my students to help them become more present, mindful, contemplative and caring. I examine in detail how to create a caring learning community, how to introduce meditation and yoga into a public school classroom as well as journal writing in order to nourish the inner life of children. I reflect on how these practices develop students’ spirituality and promote holistic values in education that seek to educate children’s body, mind and spirit.

I discuss specific programs that I introduced into my classroom such as *Roots of Empathy* and *Who is Nobody?* that engender compassion, caring and kindness among children. Developing values is another important aspect of holistic education and, in my study, I reflect on how these programs are examples of soulful, awe-inspiring curriculum that nurture students’ development

and engage them in a service activity that is a form of spiritual practice which is at the heart of holistic education.

As John Miller's (1996, 2000) writing indicates, holistic education centres on relationships or connections. In my study, I examine the six relationships that John Miller (1996, 2000) describes and analyze how I developed these connections in relation to the Ontario curriculum by linking forms of thinking, connecting body and mind, integrating subjects, nurturing a sense of community, making connections to the earth and connecting the curriculum in a meaningful way to the student's soul.

Connecting learning in the curriculum to the learner as well as to the world at large is another way of rendering the curriculum more holistic. A soulful approach to education allows education to become deeply relevant to the lives of children. In my study, I reflect on how Global education is an example of teaching from a spiritual perspective and can help students become more deeply connected with each other, the curriculum and the earth. The Ontario curriculum is inspired by a holistic philosophy and, if implemented appropriately, has the potential to educate children with learning that is more broadly conceived and more personally and socially meaningful.

Finally, I examine the environment of teaching and the role of the school. John Miller (1996) writes "Holistic education views the school as an organism and change as organic.... The school can be seen as a complex, living organism that is evolving" (p. 182). In my study, I reflect on the public alternative school where I teach and I discuss how it is an example of a soulful school. Therefore,

my study focuses on the role of the teacher and how it is possible for her to work on herself over time and rework the Ontario curriculum in order to develop a more holistic curriculum, which is ultimately far more coherent and promotes more effective learning. I further discuss the importance of developing a holistic approach to learning in students as well as parents, the learning community and ultimately the school.

### ***Significance of the Research***

There is a great deal of literature on holistic education and a growing body of qualitative research has emerged which describes the work of teachers within holistic education. This study aims to focus specifically on delivering a holistic approach to education to children in public schools by teachers who are governed by specific government policy as outlined in the Ontario curriculum. There is an absence of literature or research in this field. This study seeks to show how it is possible to bring about holistic practices in public schools based on a sound grounding in holistic education theory, but also mediated by government policy and documents, which public school teachers must adhere to. I believe this study can help develop more meaningful teacher training programs as more and more pre-service teachers learn about holistic education principles as well as how they might develop holistic programs within their public school classrooms. I believe that holistic education has the potential to be elitist if it is solely implemented in the private sector and believe it is worthwhile to introduce it into mainstream education so that every child has the opportunity to develop all aspects of his / her being: intellectual, emotional, social, physical, creative,



intuitive, artistic and spiritual. Education should encompass growth of mind, body and spirit to help learners realize their full potential in life.

The goal of this study is to show that a holistic approach to education can indeed be inscribed within the boundaries of the Ontario curriculum and to reflect on the strategies that can be developed to achieve this as well as the challenges and limitations that arise. This type of systematic, relevant and in-depth study has the potential to further the field of holistic education. Furthermore, by introducing holistic education principles and practices into mainstream education, this research should also enable otherwise marginal subcultures of teaching and learning to receive necessary exposure and legitimization from the broader educational research community.

## Chapter Four

### ***Becoming a Holistic Teacher: Processes and Practices***

The implementation of a holistic curriculum is dependent upon the teacher who is committed to educating the whole student. Holistic education can only become a reality through teachers who are willing to work to improve themselves. A holistic approach to the curriculum is possible when the teacher is self-aware and deeply engaged with students. Curriculum writers often touch on the learner, the subject matter, the techniques, and the environment of teaching, but little attention is given to the teacher, who is, in my opinion, a central feature of the curriculum. The teacher is a medium and a filter of the curriculum. In holistic education, the teacher is the backbone and the implementation of a holistic curriculum is dependent upon her. John Miller (2006) writes “Teachers need to work on themselves through various practices to become more present, mindful, and caring.... If we can be more centred and caring, then we can create a space where students may also share in these qualities” (p. 136). He further states that the work teachers do on themselves, begins to make a significant difference in their teaching and that they are able “to connect more deeply to students and their learning” (J.P. Miller, 2006, p. 137). The term *holistic* means that you are responsive to the **whole** situation. As a teacher, one can only be responsive the whole situation when one is completely present and mindful. These qualities must be nurtured and developed in teachers. By cultivating one’s own presence, then teachers will better know how to implement a holistic

approach to the curriculum while attending to the multi-dimensional needs and interests of students.

In order to be more present, mindful and caring, teachers need to make time to nurture their own soul and wellness by developing one or more spiritual practices such as practising meditation, tai chi, yoga, making a pilgrimage to a place of spiritual significance, engaging in a service activity such as helping a sick person, or going on a retreat.

### ***Working on Myself through Meditation and Yoga***

I was first introduced to the concept of holistic education in July 2005 when I took a course offered by Professor John Miller at OISE, *the Holistic Curriculum*. One of the course requirements was that students practise a transpersonal growth method (meditation or visualization) and keep a journal describing and reflecting on their experience. I decided to embark on the challenging task of meditating, focusing on the breath, and I discovered many things about myself as a result. At about the same time, I also decided to try yoga and so I registered for a Kundalini yoga class at the recreation center in my neighbourhood. The Kundalini yoga class lasted one and a half hours and the last thirty minutes were spent meditating. I was afraid that I was not meditating properly when I did it on my own initially and so the instruction I received on how to focus on the breath helped me learn to meditate more effectively. I found that the two practices: meditation and yoga complemented each other. I derived immeasurable benefits (both physiological and psychological) from practising meditation and yoga such as improved sleep, greater concentration, heightened

awareness, increased energy, greater joy, physical and mental wellness, a feeling of calmness and peace. In my reflection journal that documented how the process of meditation went (e.g., how my concentration and focus went, how my body felt, and how meditation affected me) I wrote:

July 11, 2005

I find that it is progressively easier to concentrate in my meditation. I have fewer and fewer thoughts coming into my mind. I can see in my mind's eye just blank, dark space. It is comfortable to be in this "nothingness" state. At times, I can "see" a bit of brightness, but, for the most part, it is dark. I feel cool and relaxed. My body also feels lighter. It is as if I can't feel the weight of my limbs. This is a pleasant sensation. I can still hear some sounds such as the rustle of the leaves in the blowing wind and the chirping of the birds. I can smell the sand and it smells dusty. (Author's journal, 2005)

July 20, 2005

During my meditation, I find myself concentrating more and more on my breath as well as my body. The inhaling and exhaling is long and powerful. I am aware of what my body is doing as I breathe. I can feel the air flare in through my nostrils, the rising of my lower abdomen and the opening up of my diaphragm. Then, as I exhale the air from my nostrils, I feel the air leaving my chest and finally, my stomach is flat and completely empty of all air. It is as if I am a balloon that was filled with air and has been unknotted and

flies around freely until all the air is released. My body feels cool and relaxed. I feel tranquil and at peace with my surroundings and myself. My mind is at ease and clear. The meditation makes me feel happy and calm. I look forward to my meditation each day. It provides a break for my mind, which is both inviting and restful.

(Author's journal, 2005)

August 3, 2005

My concentration during the meditation today was good. As I focussed on my breathing, I could feel the tension in my neck, shoulders and back. The longer I focussed on my breathing, the less I noticed the tension in my muscles. My body felt calm, relaxed and at ease. I could hear the waterfall, as the water from the jet fell into the small pool of water. This sound was pleasant and comforting. Although the plants and flowers that surrounded me in the garden where I meditated today were at a distance, I smelled the flowers very distinctly and they had a lovely, intense smell. Their fragrance just seemed to invade my nostrils and the intense perfume surprised me, for it was as if the flowers were right under my nose. I found this rather amazing: how strong my sense of smell seemed to be during the meditation, or, perhaps, it was simply due to the fact that I was more aware of my body and my senses. (Author's journal, 2005)

August 8, 2005

I saw each meditation session as a journey, a journey into my Self where I found an oasis of peace and tranquility. It was hard for me to believe that I could actually find such peace and tranquility within myself. I think the media conditions us to believe that we can only find what we need outside of ourselves – love, wealth, happiness, etc. and that is why many of us are forever yearning and dissatisfied. It was truly a revelation to find that the peace of mind I'd been looking for for so long in my life was at the very core of my being, it was **inside me** and I could channel it at will through meditation by simply turning my attention inward.

(Author's journal, 2005)

These reflections show the power of meditation. The most significant aspect that meditation brought to my life was the awareness that I developed of my inner Self. Up until this point in my education and upbringing, I had never been fully aware of the importance of developing all aspects of oneself: the spiritual, emotional, social, physical as well as intellectual. By engaging in meditation, I was able to learn more about my Self and I realized that my contemporary education and upbringing had never allowed me to learn about my Self, nor had I ever learned how to calm my mind and body and listen to my intuition. I realized also how unfortunate this is for students in today's classrooms where spiritual growth, emotional well-being, artistic creativity, social competencies and physical wellness are all secondary to their intellectual

development. This awareness of the importance of meditation to one's mental, emotional and physical well-being led me to introduce meditation to my students.

I firmly believe that teachers need to nurture all aspects of students' being not only their intellectual development. If students are suffering emotionally because their parents are divorcing, for example, or they are suffering from insomnia, or someone at school is bullying them, then they cannot concentrate on their schoolwork and they need help in order to deal with their emotional needs. The holistically authentic teacher is in touch with her inner Self and realizes that there is a connection between one's consciousness or inner life and other people. Therefore, the teacher's awareness of her inner Self leads to a better connection with the inner Selves of her students. Furthermore, the holistic teacher is fully aware of the fact that the body, mind and soul are mutually dependent and that all aspects of students must be nurtured in order for them to reach their full potential academically in school as well as their full potential as human beings in the universe.

### ***Developing Presence in the Classroom***

As a result of meditating, I became a more caring teacher. I began to spend more time building positive relationships with my students by getting to know them and their families well. I became more empathetic and sensitive to the needs and interests of my students and showed my caring by relating their needs and interests to the subject matter we studied. I accepted, valued and respected each student as a unique human being and fostered his or her

personal growth. I allowed for students' sense of wonder, curiosity and personal need for learning to take place.

I continued to practise meditation and yoga on a fairly regular basis for nearly two years when I took another course with Professor John Miller at OISE, *Spirituality in Education*. Again, one of the requirements for this course was to investigate various forms of spiritual practice in order to realize our deeper nature, engage in one practice, and write a reflective paper on that practice. For my spiritual practice, I decided to deepen my experience with meditation and I began to meditate daily once more. Initially, I meditated for fifteen minutes and was gradually able to meditate for thirty to forty minutes daily. Again, I began to experience numerous benefits. One of the most noteworthy benefits was the ability to settle my body and quiet my mind. Furthermore, I was able to bring this quietness and mindfulness into my daily life and practice as a teacher. Here are some reflections I wrote in a journal that I kept which documented how meditation was affecting me:

January 19, 2007

Today, I sat and meditated in my living room at home on a cushion.

I sat in the dark with three candles lit. I found it took some time to settle my mind. Thoughts kept coming into my mind and it was hard to let them go. I had to keep reminding myself to let them pass, to simply acknowledge them. I had a difficult day at work and was frustrated before I began meditating. When I was finally able to stop "thinking," I noticed some tension in my face muscles. I



tried to relax them. I was able to clear my mind and began to feel less frustrated. Once I came out of my meditation, I noticed that my face was no longer tense and I did not feel frustrated anymore. I am astonished at how something apparently so simple as focussing on the breath can help relieve my feelings of frustration. I feel happy that I gave my Self some time to relax. (Author's journal, 2007)

January 22, 2007

Today, I felt it seemed to take a long time to clear my mind. I had many thoughts going through my mind, mostly about school and my students. One of my students had a serious accident on the weekend while tobogganing. He ruptured his spleen and I found it difficult to get him off my mind. When I finally managed to clear my mind of thoughts, I could see what seemed like a tunnel and it was orange in colour due to the light coming from its center. It sort of spiralled and as I meditated I seemed to be travelling deeper into this tunnel. As I meditated, I noticed that the muscles in my back and in my neck seemed less tense. (Author's journal, 2007)

January 30, 2007

Today during my meditation session, I had an incredible feeling. Firstly, I settled my mind quite effectively after some "dialogue" with my Self. Once I cleared my mind and it became a vacant, dark space, I noticed that I could not feel where my fingers met. It was

as if they were one. I also felt as if my buttocks were part of the cushion on which I sat. It was as if the floor, the rug, my cushion and my body were all one. I felt completely connected with my Self and my surroundings. I felt deeply grounded, solid and strong.

(Author's journal, 2007)

April 16, 2007

I found that as I set aside time each day to meditate this became a special time for myself. I could let go of all my worries and concerns and focus on nothing but my Self. I found that I looked forward to sitting very still each evening and quieting my mind after rushing through yet another day. I firmly believe that everyone should be encouraged to meditate in order to maintain his or her mental health and peace of mind. For me, meditation is the only tool that counterbalances the absurd rhythm of modern life. To my amazement, I was able to bring this quietness and stillness into my day to day. At school, I began introducing my students to meditation, visualization as well as yoga. I encouraged them to quiet their minds and settle their bodies. We would walk mindfully to the gym in total silence. Remarkably, the noise level in the classroom was noticeably lower. The children seemed calmer, more relaxed. At home, I also introduced my own children to some basic yogic exercises to develop concentration and I played spiritual music from my yoga class as well as positive affirmations

for them to sing. I noticed that, even at home, my own family was quieter and the pace of life was markedly slower.

I noticed that the mindful state that I achieved during meditation manifested itself in my daily life. I listened more attentively to my students. I responded more caringly to their needs. At home, I was more present. When I played with my children, I actually engaged with them. I did not play with them while carrying on a conversation with my mother on the phone or attempting to wash the dishes. In short, I attended to situations and let myself become absorbed in the moment rather than racing ahead to what I would be doing in a few minutes or hours.

(Author's journal, 2007)

These reflections show that meditation is a powerful tool that has helped me to channel my inner power and access the wisdom that lies within me. Meditation has allowed me to slow down and live in the moment. Life today is very hurried. Children are rushed to school, extracurricular activities, through meals and bedtime. I catch myself saying: "Hurry up!" to my children all the time. We are creating a society where people feel the need to multitask and hurry through everything in order to get things done. At school, teachers feel pressured to cover an ever-growing number of expectations set forth in the Ontario curriculum. There seem to be more and more demands placed on teachers and students, however, the amount of hours in a school day has not increased. Meditation can be a very useful tool to help teachers learn how to

slow down. It is most important for teachers to learn how to do this since the overwhelming number of expectations to cover in the curriculum and the constant interruptions in a busy classroom can be very destabilizing and it is important to learn to focus, live in the present moment and appreciate the sacredness of life. Through meditation, I have been able to develop mindfulness and presence and I have been able to apply this mindfulness and presence to the classroom. When a student comes to me with a problem, I give him / her my complete presence and attention. By making time to listen to students and respecting their feelings, I believe I am creating a psychologically safe environment where they feel more willing to share their thoughts, concerns and feelings. Below is an example from my classroom that moved me deeply.

One of the Social Studies topics in the Grade 6 Ontario curriculum is Aboriginal Peoples and European Explorers. Throughout the unit, I encourage students to collect newspaper articles about current issues relevant to Aboriginal peoples. Students present and summarize an article that interests them and the whole class discusses the issues raised in the article. These articles provide students with valuable background knowledge and help them develop a better understanding of the dominant issues for the Aboriginal peoples today such as land claims and self-government. One of my students brought in an article from the *Canadian Press* that criticized the Indian Affairs Minister at the time, Jim Prentice, when he gave the First Nations community a 2-billion dollar compensation package for the physical and sexual abuse suffered by children who attended Native residential schools of the last century which were meant to

educate native children. The government offered the compensation package in 2007 that specifically had no apology. The article mentioned the “unspeakable acts” (Bailey, 2007, p. 1) that were committed upon these children. The student who brought in this article to share with the rest of the class turned red as he spoke in front of the class, his voice began to quiver and finally, he broke down into uncontrollable sobs as he expressed his concern and outrage at the situation. His emotional response to this news item caused an emotional reaction in other children whose eyes welled up with tears as they began to understand the nature of the atrocities committed against Native children of the past. And, as I sat at my desk and listened attentively to my student, I was also moved by his tears and could not hold back my own. Together, we wept at the unspeakable horror these children had endured and the cowardly action that the Canadian government continued to engage in as it denied them a much-deserved apology.

### ***Developing Authenticity and Caring in Schools***

I believe that this student was able to speak so earnestly from his heart and reveal his emotions so transparently because firstly, I created in my classroom an atmosphere of trust and mutual respect. Secondly, I, as the teacher, am not afraid to show my emotions in class. I laugh when I am happy and cry when I am sad. In essence, I allow students to see my humanity and I do not hide behind the mask of “the teacher,” but rather am authentic. This is another very important quality to develop as a teacher: authenticity. Students readily notice when there is a contradiction between what teachers say and what

they do. The holistic teacher is authentic and strives for congruence in her thoughts, words, and actions, and lives her own truth. She embodies her teaching philosophy. As a result of his presentation, this young boy in Grade 6 decided to start a petition requesting that the government offer the First Nations community a sincere apology in order to recognize the social havoc that the live-in schools caused. As chance would have it, a year later, the historic apology was finally delivered by Prime Minister Stephen Harper and I had the honour and privilege to share an article with my students that my husband, Brian Kemp, who is a journalist, wrote for the CBC. The students in my class were eager to read the article and were fully aware of its historic significance. As we read the article aloud together, tears rolled down many of their cheeks as well as mine. This time, the tears were not brought on by anger or frustration. The students were proud that Canada had finally recognized that Native people have been wronged and that the Canadian government was, at last, beginning to take some measures to right the wrong. The tears were tears of joy and hope for a better future for Aboriginal Canadians. The Grade 6 boy who was so upset over the non-apology of the government a year earlier had graduated and was attending another school. His siblings still attended the school and one day, I met his mother in the hallway and gave her a copy of the article, *Putting the pain behind them* (see **Appendix A**), which my husband, Kemp (2008), wrote about the historic apology, and asked her to give it to her son. I did not need to explain to her why as she recalled how much it had pained him that the government had refused the First Nations an apology. Although he was no longer my student, I

wanted him to have a copy of this article. He had been so moved by the government's lack of caring and responsibility that I felt it was important for me to share with him this historic change of attitude and public apology.

### ***Personal Development and Professional Development in Teaching***

I believe that my spiritual practices have made me more attuned to the needs of my students, not only academic but also social and emotional. As a result, I am better able to find creative ways that allow me to teach the curriculum in such a way that it addresses the whole student and honours my students' humanity, diverse interests and wide needs: social, emotional, moral, spiritual, creative, physical and intellectual. Teaching cannot be reduced to a set of skills, techniques or recipe for success. Good teaching comes from the heart.

Teaching, like learning, is a highly creative act that engages all the senses and aspects of one's being: mind, body and soul. Teachers develop new understandings, skills and approaches by interacting with each student and the curriculum in a meaningful way. Professional development in teachers cannot be disassociated from their personal development. They are inextricably and organically linked. I believe that a great deal of my professional development as a holistic educator was the result of being in a public alternative school where the community shared in the vision of wholeness and as a result of my personal development and all the work I did on myself such as yoga and meditation.

Furthermore, I view teaching like learning: it is a lifelong process. I fully anticipate that I will continue to evolve and develop as a teacher as I grow and develop as a person. There is wisdom that comes with age and experience. As

my years of teaching increase, I feel an inner strength and wisdom develop in regards to what I do everyday with children in the classroom.

Palmer eloquently sums this up in one sentence: “Technique is what teachers use until the real teacher arrives” (Palmer, 1998, p. 5). Teachers can certainly teach using good techniques, but education and learning does not truly begin until the teacher is able to connect with her inner Self that teaches and the transpersonal growth methods I described above: meditation and yoga helped me to connect with that inner Self and helped me find the “real teacher” which Palmer describes (Palmer, 1998, p. 5). I believe that in order to be a good teacher, it is fundamental to know who you are as a teacher. For this reason, it is vitally important that teachers explore their inner life and consciousness. This approach in holistic education has been widely neglected by most curriculum writers and yet it seems obvious that teachers teach who they are. Therefore, it is important for teachers to nurture and cultivate the teacher within, to connect with that part of themselves and teach from the heart, not just from the intellect or from a series of well-established techniques. If teachers are to connect deeply with their students, then they must first connect with themselves. For myself, I have nurtured this connection through yoga and meditation, but each teacher must find the method that best suits him or her. One might find it through keeping a journal, walking in the woods, maintaining solitude and silence, making a pilgrimage, or doing something mindfully. Whatever method teachers choose will depend on the teacher, the important thing is that teachers allow themselves the time to explore this aspect of their being. Knowing your inner Self and your



inner teaching Self is fundamental to good teaching and must not be overlooked. Through meditation, I have been able to develop that inner teaching Self and this has allowed me to listen to the voice of the inner teacher which has made it possible for me to engage more deeply with my students and the curriculum I teach. It has allowed me to reclaim my identity, my integrity and my sense of vocation. Teaching comes from a deeper part of my Self and speaks to that part of my students. For the holistic educator, teaching cannot be reduced to a set of instructional techniques, assessment, and evaluation tools; it comes from the core of his / her being and requires him / her to channel that inner wisdom by nurturing his / her spiritual dimension.

Reclaiming my sense of identity, integrity and vocation has revitalized my teaching and is likely to do the same for many teachers who may feel dissatisfied and demoralized in the current educational climate of Ontario. The job of teachers is becoming more and more challenging with an inadequate amount of time being given for them to plan for provincially mandated changes in the curriculum; large class sizes which do not allow for an adequate amount of time to work with students; high demands; and heavy workloads that require a great deal of time to manage. Teaching is a highly taxing, stressful job and more and more teachers leave this profession because they simply “burn out.” I believe that if teachers are encouraged to work on themselves, this will do a great deal to promote their well-being, revitalize classrooms and ensure that fewer teachers suffer from professional “burn out.” Of course, smaller class sizes, more time to implement provincially mandated changes, and giving teachers greater autonomy

will also go a long way to make the job of teaching more satisfying and rewarding.

In conclusion, many Ministry of Education documents, school board initiatives and curriculum resources often overlook the personal nature of teaching and learning and the role personal development plays in a teacher's professional development. Holistic education, on the other hand, honours and values the work that the teacher does on herself and sees this as a vehicle to develop curriculum that is responsive to all the needs and interests of students because it comes from teachers who teach from the heart and are completely in tune with their students' multidimensional aspects since they see each student as a unique, whole child.

## Chapter Five

### ***Educating the Whole Student: Discussion and Analysis***

*The highest function of education is  
to bring about an integrated individual who is  
capable of dealing with life as a whole.*  
(Krishnamurti, 1953, p. 24)

John Miller (2006) writes “So much of schooling is focused narrowly on achievement in school subjects rather than on nurturing the whole human being” (p. 142). This is true of public education today. Students’ achievement is seen merely in relation to academic subjects and education has been reduced to students’ performance on standardized tests. Furthermore, the sole purpose that schooling seems to serve nowadays is to prepare children to compete in the global economy. This is a very narrow vision of education and, in order to better meet the needs of students, we desperately need to expand this limited vision of education.

Holistic education, on the other hand, seeks to educate the whole student and reflects the integrated nature of learning which involves the mind, body and soul. In planning and implementing curriculum, holistic educators attend to all aspects of students’ development such as their spiritual growth, emotional wellness, creativity, moral development, social competency, physical well-being, and intellectual growth (Waterloo Region Roman Catholic Separate School Board, 1993). Holistic education nurtures the inner life of the student and connects it to the outer life of the school, the local and global community. A holistic approach to the curriculum attempts to restore the balance between the inner and outer life of children by introducing into the curriculum activities that

stimulate the learner's imagination, creativity and intuition such as meditation, visualization, guided imagery and journal writing. In this high-tech age of hyper parenting where children and adolescents' lives are filled with television, computers, gaming platforms, video games and structured time in programmed activities, youngsters' imagination and intuition have little opportunity to develop. Therefore, it is more important than ever before that schooling help children develop their imagination, intuition and creativity.

Once teachers have worked on themselves through various practices to become more present, mindful, contemplative and caring, they can begin to introduce their students to a variety of spiritual practices in order to nurture the student's inner life and help him / her with his / her own spiritual journey. As stated by London and his co-authors (2004), "Ultimately, teachers 'teach' who they are. The degree to which they have developed their 'inner' (spiritual or contemplative) selves determines the degree to which they can truly awaken this in their students" (London et al., 2004, p. 30).

### ***Creating a Caring Learning Community***

In order to awaken students' spirit or soul, I believe it is important to first create a caring learning community. This takes some time to develop but the rewards are immeasurable. In my own teaching, I was very fortunate at the school where I taught as I moved along with my students and taught the same group of students for four years. I first started to teach them in Grade 3 and taught them until Grade 6 when they graduated to middle school. Over those four years, I was able to develop long-term relationships with my students and

their families. The relationships teachers develop with students are key to creating a caring learning community built on trust, commitment, communication and collaboration. As a result of the development of personal relationships between the students and I, their learning became more personal. They saw my commitment towards them and assumed greater responsibility for their actions and learning. Parents also reciprocated in kindness and commitment to helping in school events and fundraising. Learning and teaching together over this four year period allowed my students to take more time to express themselves and to listen to each other. They became more deeply connected with each other and felt a sense of belonging.

In most public schools, students rarely have the same teacher for more than two years. In my experience, it can be very beneficial to teach the same group of students for an extended period of time. It is easier to get to know your students and their families well and to care for their needs and interests when, as a teacher, one is given the opportunity to build long-term relationships with students and their families. When one teaches the same group of students for a longer period of time, one becomes more attached to them and that attachment leads one to care more deeply for them, much like a parent who cares deeply for her own child. This form of attachment can only take place when relationships are nurtured over time. Dewey (1902) was right when he wrote, "What the best and wisest parent wants for his own child, that must the community want for all its children. Any other ideal for our schools is narrow and unlovely; acted upon, it destroys our democracy" (p. 3). As a teacher as well as a mother, I have to

agree with Dewey (1902) that education and schools should be more akin to good parenting. As a parent, one seeks to help her child develop as fully as possible whether it is caring for her physical well-being, emotional health or introducing her to music, art and / or sports so that the child develops to her full potential. A parent is responsible for caring for **all** the needs of her child. So it is in holistic education. The holistic teacher seeks to nurture all aspects of the student. She is responsive to the needs of the whole child. Caring and developing healthy relationships, built on mutual respect and open communication, must play a far greater role in educating the young, so that we can create more caring and compassionate human beings.

One of the ways that I enjoy getting to know students at the beginning of the year is by having them write an autobiography. The autobiography (see **Appendix B**) gives students the opportunity to tell me about themselves through their writing and visual art. The assignment, which I developed, based on a worksheet I obtained from a project leader, who provides support for beginning teachers in the TDSB, asks students to write about their childhood, the present and the future. Students describe the circumstances around their birth and their name. They describe their family and what they do, a vivid early memory from their childhood, their favourite toy or object, their most proud or embarrassing moments. Students discuss their personality now, their virtues and vices, who are the people they care most about and why, their favourite activities or interests and something they strongly believe. Students also describe their aspirations by naming a possible career or education they might follow in the future. Students

are encouraged to include a creative piece in their autobiography, which can include poetry or prose, a collage that reflects who they are, other artwork or a photo story of their life.

The autobiographies I collect from students at the beginning of the year give me an opportunity to learn a lot about my students. They tell me about their personal and family story. I come to see them as more than just students in my classroom, and gain an understanding of who they are as people, what is important to them and learn a great deal about their life outside school. In short, through the use of autobiographies, I am able to see each student as a whole person. I learn about how they have been affected by important events in their family history such as the divorce of their parents, the sickness of a loved one, or the loss of their favourite pet. I also learn about their dreams of the future and fears. These autobiographic stories paint for me each student's inner landscape. After reading them, I feel more deeply connected to my students. I also share my own autobiography with my students so that they, in turn, can also come to know me better and see me as more than just a teacher, but as a real human being. I share personal information about myself such as where I was born and my most embarrassing moment as a child in school when I got gum all over my hair because I was chewing gum in class even though it was not allowed. I describe to them some of my virtues as well as my vices and share some of my strongest beliefs, which echo the words of Dr. Martin Luther King and his vision of the "beloved community" (The King Center, 2004) where peace and equality reign. I find that students welcome hearing my own personal story and are more

apt to write theirs with a greater sense of purpose and interest once they hear mine. By sharing my own personal story with my students, I also aim to let them see a glimpse of who I am not only as the teacher who stands in front of the classroom, but also as the caring mother of two energetic boys, the busy homemaker, the loving wife of an accomplished journalist, the hard working graduate student, the hopeless social idealist and the many other hats that I wear. I use my story to help my students learn more about me and see me as a whole person too. In this way, I become more human to them, more real and this helps us connect more deeply with each other. I also give parents the opportunity to share information with me about their child, their goals for their child as well as how they would like to be involved in their child's education. I send home an information sheet called, *Getting to know your child and family* (see **Appendix C**), which every family fills out and, in this way, I learn a great deal about the children in my class, their interests and needs as well as what parents see as important for their child's learning and development. I got the idea for this survey from a colleague and I adapted it to suit my students. I have found this information very helpful at the beginning of the school year and it is also a useful way to engage parents in their child's education and give them a voice. It helps me to see what I can do in the classroom to complement children's learning at home, helps make parents feel welcome in the school, encourages them to become involved in the classroom, volunteer to help supervise during field trips, and lead school clubs, committees and activities.



Over the years, I have had a great deal of support from parents. They have volunteered in the classroom to develop art projects, conduct pottery workshops, science experiments, read with children, lead music and drama lessons, organize a yearbook, and one parent, who was a massage therapist, even came in to teach the students relaxation techniques! I have found that when I reach out to parents and invite them into the classroom, they act as wonderful partners in educating all the children in the class. It is important to develop caring relationships with students, but it is equally important to develop caring relationships with students' parents and / or caregivers. To do this one need only maintain an open door policy, communicate openly and informally with parents on a regular basis, and welcome them when they come to drop off or pick up their child so that they feel free to participate in their child's education. In my own experience, education works best when teachers and parents work collaboratively to educate the whole child and one reinforces the other at home and at school.

One of the ways that I developed a caring learning community in my classroom was to cultivate caring and compassion in my students. I began to do a loving-kindness practice with my students every day that I had experienced in both of my courses at OISE with Professor John Miller. This practice allows one to connect with the heart and share the warmth and compassion in our heart with others (J.P. Miller, 2006). For example, I used the following two approaches:

May I be well, happy, and peaceful.

May my family be well, happy, and peaceful.

May my friends be well, happy, and peaceful.

May my neighbours be well, happy, and peaceful.

May my colleagues be well, happy, and peaceful.

May all people whom I meet be well, happy, and peaceful.

May all people who may have injured me by deed, speech,  
or thought be well, happy, and peaceful.

May all beings on this planet be well, happy, and peaceful.

May all beings in the universe be well, happy, and peaceful.

And,

May I be well, happy, and peaceful.

May all beings in this room be well, happy, and peaceful.

May all beings in this building be well, happy, and peaceful.

May all beings in this neighbourhood be well, happy, and  
peaceful.

May all beings in this city be well, happy, and peaceful.

May all beings in this province be well, happy, and peaceful.

May all beings in this country be well, happy, and peaceful.

May all beings on this continent be well, happy, and  
peaceful.

May all beings on this planet be well, happy, and peaceful.

May all beings everywhere be well, happy, and peaceful.

(J.P. Miller, 2006, p.62)

The first approach starts with those who are closest to us emotionally and then extends to others. The second approach starts with oneself and moves outward geographically (J.P. Miller, 2006).

After the morning announcements, I started each day with this practice and I found that it added immensely to the tone and feel of my class. I noticed that my students were kinder and more loving to each other since we started this practice three years earlier. Furthermore, students looked forward to the practice each morning. Parents would comment to me that their child expressed concern about being late for school in the morning because they did not like to miss the loving-kindness practice. It is a wonderful way of centering ourselves and starting each day in a calm and positive manner. It allows students to settle down and let go of any negative feelings or stresses that might otherwise hinder them from concentrating on their schoolwork and, therefore, promotes better learning. The loving-kindness practice also allows students to see how we are all interconnected since the practice starts with people who are emotionally closest to us and then moves out or, starts with ourselves and then moves out geographically (J.P. Miller, 2006).

In my third year teaching this group of students, one of my students was seriously injured in a tobogganing accident. He ruptured his spleen and spent several weeks in the hospital. Although this boy was not at school, I found myself constantly thinking about him. While he was ill, I would often visualize him and send him thoughts of healing and well-being. When my students and I performed our loving-kindness practice each morning, I encouraged students to

also visualize this classmate who was ill and send him healing thoughts. After six weeks in the hospital, this boy returned to class completely healed and with only a few precautions to observe. I sincerely believe that this student recovered so successfully as a result of the thoughts of good health being sent to him daily from all of his classmates as well as myself.

Nel Noddings (1992) has written extensively about the importance of developing caring in schools. She has argued, "Education should be organized around themes of care rather than the traditional disciplines" (Noddings, 1992, p. 173). She has suggested that students should learn to care for themselves, others (people close to them as well as people across the globe), plants, animals, the environment, the man-made world, as well as ideas (Noddings, 1992). I am in complete agreement with her when she states, "The main aim of education should be to produce competent, caring, loving and lovable people" (Noddings, 1992, p. 174). Teaching children to care for other people, plants, animals and the earth is important to nurturing their souls and it is an approach that is fundamental in holistic education. In my classroom, I have found that performing the loving-kindness practice daily, has promoted greater kindness, caring and compassion among students. As Noddings (1992) recommends, I have found many ways for my students to care for other people, plants, animals, the environment and the earth, which I will discuss later on when I describe curriculum connections and holistic education.

## ***Meditation***

Another way to nourish students' soul in the classroom is to introduce them to meditation or visualization. There are many different types of meditation that teachers can introduce in schools. Leveté (1995) recommends, for example: following the breath; connecting to the body as in body scans by focussing one's attention through the entire body slowly; movement meditations such as walking meditation, yoga, or tai chi; mantra meditation which focuses on a sound, a word or a phrase; visualization; and observing the mind where the meditator notes each passing thought (cited in J.P. Miller, 2006, p. 52).

After I had been meditating for a while on my own, I began meditating with my students in the classroom twice a week. I introduced them to stationary meditation practice that focused on the breath. I encouraged them to sit on a chair with their legs relaxed and their hands on their thighs or sit on the floor with their legs crossed, keep their head, neck, and chest in a straight line, close their eyes, relax and allow thoughts and outside noises to drift away gently by focusing only on their breathing. We began by meditating for about three minutes per session and gradually increased to fifteen minutes each time. I noticed that the majority of my students engaged in meditation with enthusiasm. At first, some students had difficulty sitting still and were silly, but, after a few weeks, everyone was able to concentrate better during the meditations and the tone in the class was noticeably quieter and far calmer. One important aspect about the meditation I did with my students is that I always allowed for debriefing at the end of each session. I gave students the opportunity to share what they

noticed about their concentration; how they felt during the meditation and any other comments they wished to share about what they noticed. My students enjoyed sharing their meditation experiences with each other. They welcomed the opportunity to sit still and focus inwardly on the breath. They realized how difficult it was to maintain their attention solely on their breath and commented that the most challenging aspect of meditation was to refrain from entertaining the thoughts that entered their mind, but to simply be aware of them and let them go. Many students reported to me that, since we started meditating in class together, they were able to sleep better at night. This came as quite a shock to me, but it is amazing to learn how many young children suffer from sleep disorders and insomnia. Many of them said that it helped them calm down and relax. More than half of my students started to practise meditation at home on their own because they enjoyed this quiet time and it helped them calm down. I noticed that many of my students became more aware of their posture and breathing and far fewer students sat with their backs slouched. One of my colleagues even asked me if I could teach his class how to meditate since they had heard their friends were doing it in my class and they wanted to practise meditation too.

I realize that in some schools parents would object to these practices. However, in public schools, it is important to present meditation in a nonreligious framework. I have practised meditation with children for four years now and I have never had a single complaint. On the contrary, parents have told me how much their children enjoy meditating at school. They have told me that their

children seem calmer and more focussed. I believe meditation in public schools can be approached in a less controversial manner by giving students the choice to participate in the activity, and integrating it with other activities such as art, drama or physical education. Meditation can be approached as a centering activity to help students learn to relax, focus their attention and concentrate. It seems that more and more children suffer from attention deficit disorder and hyperactivity. These children who have a short attention span would likely benefit from exercises that help them focus and maintain attention. In my opinion, meditation can help children learn how to calm themselves and it can help improve their concentration in an unobtrusive manner. Many of my students insist on meditating before a test because they tell me that it helps them feel less stressed. I noticed that after meditating for several months, my students seemed generally calmer, more tolerant of and patient towards each other. Occasional teachers who visited my class always commented on the students' thoughtfulness and respectful manner. In fact, in 2007, our school was named the "Excellent school award winner" as it was voted by the Elementary Teachers' Federation of Ontario (ETFO) as the school where occasional teachers from the TDSB most preferred to teach. Of course, this is not only due to meditation, but I believe meditation does a great deal to engender a calm, respectful disposition among students. It teaches them to be in communion with themselves and others in a thoughtful, peaceful manner. Through meditation, I feel that I have become more authentic and present as a teacher. Meditation has infused my teaching. I bring the same attention and groundedness of my meditation practice

to my teaching practice. Similarly, I feel that meditation also brings out students' authenticity. Meditation helps every student develop his / her sense of identity and uniqueness. It grounds them, helps them to connect with their heart and, as a result, they connect better with each other as friends and classmates as well as with me, the teacher. Through meditation I have been able to connect with my students more deeply and this connection helps me when I am planning and developing curriculum for them. It has brought me greater clarity and awareness of the types of learning they need and deserve.

In this way, education is not merely the acquisition of knowledge and skills; instead, it becomes an enriching exploration of the world and one's meaningful, personal connections to it. This type of education begins with developing every learner's consciousness through spiritual practices such as meditation and honours learners' diverse needs and interests which include, but are not limited to: physical activity, intellectual development, stimulating curiosity and imagination, appreciation of the arts, connections to ecological, community and global issues. John Miller (1996) has stated that, "If the teacher is not engaged in some effort to connect with the Self, then any attempt at holistic education will indeed be hollow" (p. 171). I would add that if the teacher does not engage her students in an effort to connect with their Self as well, then holistic education will be equally hollow, because it will not come from the core of students' beings.



## ***Visualization***

Another type of spiritual practice that I introduced my students to is visualization. Visualization is another method for allowing students to contemplate. It can be used in public schools with less controversy than meditation since its primary focus is imagery and it is not associated with any religion. Children learn through contemplation. Visualizations allow children to become what they encounter and so can be a powerful tool for learning new concepts in Science or Social Studies for example. After learning about the water cycle students can be led through Jack Sequist's visualization, "The Water Cycle" (cited in J.P. Miller, 2000, pp. 58-59). Guided imagery activities allow students to connect abstract subject matter with their own inner experience (J.P. Miller, 2000). I used this visualization with my students in Grades 3 and 4 when we studied the water cycle in connection with the Science and Technology curriculum and found that it helped many of them understand the different states of matter as well as the process of evaporation and condensation. John Miller (2000) states that visualizations allow "abstract subject matter" to "become part of the student's inner life" (p. 60). The visualization about the water cycle helped my students understand some rather abstract notions in Science such as matter and changes in states of matter. The use of this visualization or guided imagery placed them in the natural world and allowed them to become the water of a large, calm lake and experience what happens as water evaporates and becomes absorbed in the clouds, moves across the sky and eventually returns full circle to join the lake where it started. This imagery complemented the

Science curriculum and made it far more accessible to my young students. In holistic education, this is a key principle: for learners to engage with learning to the point where they become the object of study. Through contemplation exercises such as visualization, children can be encouraged to become the object that they study (J.P. Miller, 2000, p. 60).

I have also encouraged students to visualize themselves in a variety of contexts in order to promote learning in Science and Social Studies. I have used this type of visualization with students in Grades 5 and 6. I invited students to research a European explorer or a Canadian astronaut and I asked them to imagine they were that historical or space figure. Students then dressed up as the character and told their classmates about one of their historical expeditions, significant space travels or important scientific discoveries using a first person narrative. (See **Appendix D** for a description of the activity) Students thoroughly enjoy this type of activity that actively engages their intellect, physical body and imagination. It integrates a variety of subjects such reading, writing, art and drama, and it allows children to integrate their imaginative inner world with the outer world of school subjects. As a teacher, I am always impressed at how much information students gather and are able to share with fellow classmates in this engaging, interactive manner.

Visualizations can help students relax before an important test or performance. I have used Piero Ferrucci's visualization, "The Sky" (cited in J.P. Miller, 2006, pp. 83-84) with my students in Grades 5 and 6 to help calm them down before a test or before a presentation. After doing this visualization with

students, they become far calmer and I find they are able to concentrate better. Many times, students who are quite capable perform poorly on tests because they feel anxious or do poorly in an oral presentation or dramatic role-play because they are nervous. Visualizations can be used by teachers to help reduce students' anxiety and nervousness. As anyone who teaches in schools today is well aware, anxiety among children and adolescents is rampant. Therefore, it can be very beneficial for educators to help students learn how to manage and reduce their anxiety.

Visualizations can also promote greater self-confidence and help students achieve goals. I often encourage my students to imagine themselves doing well on a test or in a sports competition. I encourage them to imagine themselves accomplishing a specific goal and imagine how it feels to succeed. Many of them have incorporated this technique into their daily practice and I find it amusing when I notice them teaching other students how to use this type of visualization to realize their specific goals. My elder son practises it regularly. He imagines his soccer team winning a soccer match against a skilled opposing team or envisions himself doing well on a challenging Math test and he tells me that it always works when he does it. This simple technique can promote a healthy, positive attitude towards life and can help students become more confident. More and more, I see children who suffer from a low self-esteem. As teachers and parents, I believe we need to provide children with tools to help them improve their self-awareness, self-esteem and confidence. Guided imagery and visualizations can help students deal with many aspects of their life. They can be

used to help students develop spelling skills, writing skills, and interpersonal skills (J.P. Miller, 2000). Students can promote a variety of skills by imagining themselves dealing successfully with that specific skill such as successfully spelling a challenging word, successfully writing a research paper, or successfully dealing with a potentially troublesome student and handling these situations in a relaxed, calm manner.

In my experience, meditation and visualization can help students relax and connect with themselves. They are tools that help students come to know themselves. Meditation and visualization help students tap into their intuition. These practices help them develop concentration, mindfulness and self-discipline. Since I introduced my students to meditation and visualization, I noticed that they seemed much calmer, more relaxed, appeared more focused during lessons and were better able to stay on task. Furthermore, students seemed kinder towards and more tolerant of each other.

Meditation and visualization can also help students listen to their inner voice which can help them make morally right decisions and guide them in making important choices in their life. Meditation helps students become more contemplative and contemplation can lead to actions that empower them.

### ***Yoga***

As stated earlier, I began attending yoga classes when I started my graduate studies. Initially, I began to practise yoga in an effort to learn to breathe consciously (slower and deeper) and meditate more effectively since the mind follows the breath and the body follows the mind. Within weeks, I began to feel

more peaceful, relaxed and content. I became interested in the spiritual framework that underpinned the yoga and began reading about the philosophy and ideals behind this ancient practice. My yoga practice led me to develop greater knowledge of my physical self, my inner self, my strengths and my areas for growth. Through the learning inherent in both yoga practice and reflective writing where I documented my meditation and yoga practice, I became more self-aware, more self-composed and stronger physically, mentally and emotionally. I began to see many parallels between my yoga practice and my teaching practice. Both yoga and teaching practice require that the practitioner focus on the present moment, be intensely aware of experiences and sensations and respond to these feelings and needs. There is endless opportunity for growth and improvement in yoga and teaching practice, as both are human activities in pursuit of an ideal. In both, improvement can only occur with increased awareness, concentrated effort and continual practice.

After I practised yoga for a number of months, read extensively about the philosophy behind yoga, and learned more about yoga for children through literature and workshops, I decided to introduce yoga to my students at school. Although I was not an expert by any means and believe that I still have a great deal to learn about yoga practice, I felt an overwhelming desire to share this remarkable practice with my students. It is said that yoga illuminates your life. If you practise sincerely, with conviction and honesty, its light will spread to all aspects of your life. Perhaps that is what led me to feel so strongly that yoga should be included in the daily school curriculum.

Yoga literally means “union.” Yoga is a practice that integrates the mind, body and soul. I believe that yoga should have a place in the health and physical education curriculum of public schools. Yoga helps develop spirituality in education along with other subjects such as music, visual arts, drama and dance. In my opinion, by teaching yoga in schools, it is possible to lay a foundation for lasting mind, body and spiritual health.

I provided my students with two yoga classes a week as part of the daily physical activity (DPA) program introduced by the Ontario Ministry of Education in 2005. The Ministry (1998) introduced a resource guide that recommended a minimum of twenty minutes of moderate to vigorous daily physical activity each school day during instructional time for students in elementary schools from Grades 1-8. The Ontario curriculum clearly supports and, in fact, demands daily physical activity in schools. It states:

Health and physical education are essential to the entire school curriculum. Studies show that students who participate in physical activity each day exhibit improved memory, concentration, and communication, problem-solving, and leadership abilities, which improve their learning in other subject areas. Such students also display more positive attitudes towards themselves, improved interpersonal behaviour, and a willingness to meet and deal with the challenges of daily life. (Ontario Ministry of Education and Training, 1998, p. 5)

The Ontario Ministry of Education (2006a) recognizes the positive impact of daily physical activity on students' physical, mental, and social well-being. It indicates that, "Positive experiences with physical activity at a young age also helps lay the foundation for healthy, productive lives" (Ontario Ministry of Education, 2006a, p. 5).

In accordance with this document, on the days when my students did not have a scheduled physical education class, I introduced them to a variety of forms of physical education. Sometimes, I led them through a cardiovascular workout, other times, we practised muscle building and strength training, went for a vigorous walk, ran, played cooperative games, or practised sports such as floor hockey or soccer baseball and, finally, one day, I led them through a yoga set. I introduced my students to yoga, which is a form of health and physical education that is regrettably absent from most public school programs and, as time passed, they began to ask me if we could do it more and more often until it became part of our regular daily physical activity. What is worth noting is the fact that, although I introduced my students to yoga, it was at their insistence that it became part of our regular DPA. Firstly, I introduced them to long deep breathing. We practised long deep inhalations and exhalations as students sat with their spine very straight. The slower the rate of breathing, the calmer the mind becomes. I taught students to inhale and exhale as long, full and complete as possible while making them aware of their lung capacity, their abdominal muscles and their diaphragm. Next, I taught them a variety of classic yoga poses or asanas, such as, for example: Bow Pose, Camel Pose, Child Pose, Cat / Cow

Pose, Cobra Pose, Corpse Pose, Locust Pose, and Shoulder Stand (for a description of these poses see **Appendix E**). We practised these regularly. I taught them to sit up tall and straight with their head, neck and back aligned in Easy Pose (see **Appendix E**). Students sat comfortably on a mat. I encouraged them to breathe deeply in the posture and notice the breath coming into the body and going out. I encouraged them to close their eyes, to be aware of their body and notice how they felt as they went through each posture. Later on, when they were familiar with the postures, I taught them to practise a series of asanas in a prescribed order not only to enhance the effectiveness of the asanas, but also to benefit specific parts of the body such as the spine, the respiratory system, or the digestive system. Present day physical education programs in schools create a deeper mind-body division as they only develop the physical body. Yoga, on the other hand, allows children to explore the mind-body connection. The poses develop children's body image and help connect the body to their consciousness. Unlike traditional physical education programs, yoga does not only develop muscular or cardiovascular strength. Yogic exercises develop the whole body including metabolism, lymphatic circulation, hormonal secretions, and bring about a chemical balance in the body. In yoga, the music that accompanies the movements is uplifting and positive. The songs are affirmations and can have a subtle, positive influence on young children's minds. Yoga's meditation and breathing techniques help children learn to relax and helps improve their self-esteem. Yoga allows children to express themselves in a non-threatening, non-competitive environment, which contrasts



markedly with the excessively competitive nature of most team sports. The overt competitiveness of sports engenders animosity among players and sports fans, which can lead to hatred and violence and only serves to bolster the ego. Too many times, sports competitions end in violence. One need only remember the violence in soccer stadiums worldwide. I am reminded of the violent nature of sports every time I hear a coach yell to his team, "Attack!" when he wants the players to be more aggressive on the field. Yoga, on the other hand, is non-competitive. Students are encouraged to strive to do their personal best and become aware of their physical body in the movements. There is no competition in yoga, just self-expression and individual, personal growth. Yoga offers a more balanced approach to health and physical education than traditional sports where competition dominates. Of course, competition is a part of life, but it need not dominate our lives and yoga offers an inclusive, non-competitive, balanced approach to physical activity. Yoga allows children a "time out" from their busy day and allows them to learn how to relax. Yoga develops mindfulness and helps connect mind and body through the awareness that it brings to breathing, the outer movement of the body as well as inner feelings. The ultimate goal of yoga is for us to join and be one with our *Sat Nam* "true name" or inner self. I believe that yoga has an important role to play in developing spirituality in education as it helps nourish the soul and facilitates human wholeness. Yoga can bring about balance and harmony to physical education programs since it develops more than just the physical body, but rather integrates the mind, body and spirit. Since I introduced my students to yoga, I noticed that their hand-eye

coordination as well as their concentration improved. They seemed more relaxed and happier. It helped some students improve their physical strength and self-esteem. I also noticed that students who were regularly involved in conflicts with other students showed improved behaviour. Furthermore, I noticed that, in general, girls seemed to be more interested in practising yoga than boys. However, even the most athletic and competitive boys were easily motivated to do yoga when I introduced them to more advanced poses. For example, boys enjoyed challenging yoga poses like the Bow Pose and the Bridge Pose (see **Appendix E** for a description). And, in general, all the children enjoyed any type of partner yoga. Partner yoga exercises use the buddy system. In poses, partners rely on each other's support to keep the body correctly aligned, maintain good balance, flexibility and concentration. In partner yoga poses, children learn to develop greater trust with peers and they learn how to support each other in a safe environment. My students found partner yoga fun and it helped them to develop stronger connections with each other and build greater cooperation. Furthermore, partner yoga used the power of the partner dynamic to allow them to rely on each other's support to achieve more than they could on their own.

I believe that the self-awareness, which can be developed through yoga practice, is strongly linked to self-assessment in student learning. Effective self-assessment skills are critical to learners' development and self-efficacy. As educators, we need to work diligently with students to nurture these abilities and promote students' ability to assess their own learning and to set specific goals. By involving students in the assessment process, they gain an understanding of

how assessment works, why it is useful and it becomes an integral part of the learning process for students. Similarly, yoga practice requires the practitioner to develop increased self-awareness and concentration. One must focus one's attention on the breath, survey the mind and the body and make adjustments as necessary so that the pose is most effective. Yoga practice can help students develop increased self-awareness. Self-awareness is a critical skill, which can be associated with self-assessment. Self-assessment is a highly valuable skill for students to develop in order for them to become independent, self-directed learners. Like self-awareness in yoga, self-assessment in learning, helps students judge how much effort they need to put into their school work, how much time they need to spend on a project, how much they need to elaborate on a description of a character in a story, and so on. It also gives them the ability to judge the quality of their work, recognize the areas where they need to improve and decide what next steps they need to take in order to improve. If learners are better attuned to their learning needs, monitor their own learning through increased self-awareness and self-assessment strategies, and put forth a concentrated effort and continual practice, then this reflective state will lead them to work in the areas where they require more growth and this will lead them to greater learning and academic growth. In this way, the self-awareness that one develops through yoga practice can be likened to the development of self-assessment skills which educators must help nurture in learners in order to promote self-efficacy as learners. By practising yoga students can gain greater self-awareness, which can lead to personal growth, and this increased self-

awareness will also help them build self-assessment skills that are critical to effective learning and academic growth. Self-awareness is to yoga practice what self-assessment is to learning: both can lead to growth if one continually practises with honesty and integrity.

### ***Journal Writing***

The above-mentioned activities: meditation, visualization and yoga can be combined with journal writing. Having students write about their meditations, visualizations, yoga sessions or even just about themselves can be a soulful experience. As students share stories about their family, their life experiences, their hopes and dreams, their feelings, thoughts and intuitions, it is possible to see every student as a whole person and it helps teachers connect with students on a deeper level, from one soul to another. I recall keeping this type of journal when I was in Grade 7. My teacher read the pages that students marked giving her permission to read only some sections of students' journals. As I look back now, I recall how comforting it felt to give my thoughts and feelings a voice and a space where they could express themselves. I do this for my own students as well. Journal writing allows them to connect with their inner self and it allows me to connect with them on a deeper level. It has made me more aware of them as thinking, feeling human beings and not just bodies in the classroom.

Other ways for students to connect with their inner life is through the arts. Music, visual arts, drama and dance, and literature are excellent ways to develop this deeper connection. I find that as a teacher I am deeply connected to my students. They are a part of me. I talk about them at home with my family and,

at night, when I retire to bed, they are often in my dreams. Teaching for me is more than just a job or a profession; it is a way of life. I believe that in teaching I have found a way to express my true self or my soul and that is why I am able to connect with my students on such a deep level and make relevant connections with the curriculum in such a way that all subjects are taught in an integrated, holistic framework. Through the abovementioned spiritual practices (meditation, visualization, yoga, and journal writing) that I practised to work on myself and encouraged students to practise so that they could also work on themselves, I have gained greater self-awareness in my personal and professional life. I am able to teach from the heart and feel as if I have found a home in holistic education since it encompasses a broad, inclusive approach towards teaching and learning that helps students develop all aspects of their being: physical, emotional, spiritual, moral, social, creative and intellectual.

I see more and more students as well as parents aching for this type of education that values and nurtures all aspects of the child. In an ever-changing world, where information grows rapidly and changes constantly, it is more important than ever to develop a deeper connection with the inner self, find a deeper meaning to life and a purpose that guides us to discover information that is worthwhile for us to acquire in order to improve the quality of our existence and that of life across the globe.

Rapid and continuous change in education can lead to fragmented, ineffective implementation of school reform policies. Holistic educators, with their broad vision of education and attention to the whole situation, will be in a better

position to adapt new directives and policies in education and implement these in such a way that they will benefit the whole student. A holistic approach to the curriculum recognizes the richness and wholeness of the human experience.

This type of curriculum recognizes that the student cannot be reduced to a set of expectations that must be demonstrated by the end of each grade, instead, it respects the whole child and his / her natural growth and development over time.

## **Chapter Six**

### ***Implementing a Holistic Curriculum: Personal Accounts and Reflections***

In this chapter, I will outline the essential features of a holistic curriculum and then share my personal experiences as I implemented this conception in the public alternative elementary school where I taught.

Firstly, it is important to understand that holistic education seeks to maintain a balance between the whole and the part. Generally, traditional education has focussed on the part by dividing the school curriculum into subjects, units of study and individual lessons. The problem is that often times teachers fail to link the lessons and subjects taught to broader concepts. Similarly, students are often unable to contextualize what they learn in individual lessons. As a result, they are unable to connect their learning and see the “big picture”. Consequently, their learning becomes fragmented and students fail to apply their learning adequately in real world situations. In holistic education, teachers connect learning between lessons, units of study and subjects so that students can clearly see the connections among the curricula. This helps to make the curricula far more coherent to students and it helps them to integrate their learning with their life experiences, which ultimately makes learning more personal and meaningful to students. John Miller (1996) describes factors in the curriculum that need to be kept in balance in a holistic curriculum. These are as follows:

- Individual competition and group collaboration
- Memorization of content and processing skills

- Knowledge and imagination
- Rational knowledge and intuitive knowledge
- Quantitative assessment and qualitative assessment
- Teaching techniques and a vision of the development of the whole child
- Assessment and learning
- Technology and broader programming (J.P. Miller, 1996)

Before examining the features of a holistic curriculum, it is important to recall the definition of holistic education that John Miller (1996) gives us:

The focus of holistic education is on relationships – the relationship between linear thinking and intuition, the relationship between mind and body, the relationship between various domains of knowledge, the relationship between the individual and community, the relationship to the earth, and the relationship between self and Self.

In the holistic curriculum the student examines these relationships so that he or she gains both an awareness of them and the skills necessary to transform the relationships where it is appropriate.

(p. 8)

This definition focuses on “relationships” or “connections” which can be explored in the curriculum in a variety of ways. Ultimately, these “relationships” or “connections” help make learning personally and socially meaningful for students.



### ***Holistic Curriculum through a Focus on Relationships***

Before I discuss my own teaching experiences in focussing the Ontario curriculum on these types of connections, I will give a brief outline of the six relationships that John Miller (1996) describes in his work, *The holistic curriculum*. They are as follows:

#### **1. Relationship between linear thinking and intuition**

"The holistic curriculum attempts to restore a balance between linear thinking and intuition" (J.P. Miller, 1996, p. 86). Schools have traditionally emphasized linear, analytic problem solving thinking skills. Holistic educators believe that there are other ways of knowing such as physical, emotional, and spiritual. They respect students' feelings and creativity. In a holistic curriculum, these forms of knowing can be explored through techniques such as meditation, visualizations, guided imagery, exploring metaphors, creative writing, developing students' multiple intelligences and critical thinking skills.

#### **2. Relationship between mind and body**

"The holistic curriculum explores the relationship between mind and body so the student senses the connection between the two" (J.P. Miller, 1996, p. 86). The relationship can be explored by developing mindfulness, by focussing on moment-to-moment awareness; movement, dance, and drama are other vehicles for connecting body and mind; and centering exercises such as yoga that connect the body to our consciousness.

### 3. Relationship among domains of knowledge

A holistic curriculum connects academic disciplines and school subjects through an interdisciplinary approach to thinking and theme-based approaches to link subjects (J. P. Miller & Drake, 1990). Subjects can be connected to learners (self-subject connections); subject-subject connections where several subjects can be integrated across a broad theme; and subject-community where subjects may be studied in relation to the local and global community as, for example, environmental issues (J.P. Miller, 1996).

### 4. Relationship between self and community

"The holistic curriculum sees the student in relation to community" (J.P. Miller, 1996, p. 87). Community refers to the school community, the community of the town and country one lives in, and the global community. Students are encouraged to develop interpersonal skills, community service skills and social action skills. Teachers develop these skills through cooperative learning techniques; creating a warm, caring, inclusive, nurturing environment in school settings where students' personal growth is encouraged and each student's cultural and linguistic background is validated and respected; students are encouraged to participate in the life of the community through community service work and social action projects that allow students to effect some positive change in the life of the community, such as cleaning up a local playground where children play or collecting food in the community to

donate to the local food bank to help less fortunate families; and global education.

#### 5. Relationship with the Earth

A holistic curriculum seeks to reconnect students with the earth and its organic processes (J.P. Miller, 1996). Education has traditionally focussed on preparing students for the competitive global market to the detriment of developing a deep care and concern for the planet that we inhabit. Indigenous values that show a reverence for Nature and the natural world have been notably absent in traditional schools dominated by the values of Western civilization. Holistic education seeks to reawaken students to the natural processes of life and encourage them to show reverence and awe for Nature. Teachers can develop strong connections to the earth through environmental education, ecological literacy, indigenous peoples' literature, raising awareness about ecological issues and social responsibility so that students acknowledge the impact of technology and environmental issues on communities.

#### 6. Relationship between self and Self

"A holistic curriculum lets us connect with the deepest part of ourselves" (J.P. Miller & Drake, 1990, p. 27). Teachers can help learners connect with the Self through the arts. Music, Visual Arts, Dance and Drama are all excellent ways to develop this deeper connection. Another way is through literature, for example, poetry and mythologies, which deal with the universal concerns of human beings (J.P. Miller & Drake, 1990).

Journal writing is another excellent vehicle to discover the Self. In addition, it can be a powerful way for teachers to get to know students and respond to their needs. Meditation is another way of getting to know oneself. Meditation can be explored in the classroom as a relaxation exercise to quiet the body and the mind. Through relaxation, the student can connect with his / her center. Over time, meditation can bring about a deep sense of connectedness with others (J.P. Miller, 1996).

The elements discussed in chapter five that relate to developing the whole child such as meditation, visualization, yoga and journal writing are all part of a curriculum of the inner life. They address the abovementioned three connections: the relationship between linear thinking and intuition, the relationship between mind and body, and the relationship between self and Self. In this chapter, I will discuss how I addressed the remaining three connections: relationships among domains of knowledge, relationship between self and community, and relationship with the Earth. The latter three connections can be associated with a curriculum of the outer life of the student while the former three focus on a curriculum of the inner life. In this section, I will discuss how I worked with the Ontario curriculum and incorporated these intrinsic connections into developing and implementing a holistic curriculum.

A holistic approach to education is compatible with the Ontario curriculum. One can see a holistic vision of education in the Ontario Ministry of Education (2006b) language document where it articulates the subject-subject connection that John Miller (1996) describes in the relationship among domains of

knowledge. The document aptly tells us, “Opportunities to relate knowledge and skills in language learning to wider contexts, both across the curriculum and in the world beyond the school, motivate students to learn and to become lifelong learners” (Ontario Ministry of Education, 2006b, p. 7). The document also seems to support the development of the whole child and articulates the relationships between self and community and between self and Self: “In implementing this curriculum, teachers can help students – particularly students in Grades 7 and 8 – to see that language skills are lifelong learning skills that will enable them to better understand themselves and others, unlock their potential as human beings, find fulfilling careers, and become responsible world citizens” (Ontario Ministry of Education, 2006b, p. 7).

I believe that a holistic approach to education is indeed compatible with the Ontario curriculum. It is possible for teachers who share this vision of education to develop and implement curriculum around this framework of relationships or connections that John Miller (1996) describes in his work, *The holistic curriculum*. This concept of making connections among school subjects, to the community, and to the Self is clearly articulated in the Ontario curriculum document.

In my own teaching practice, three factors were critical as I incorporated my holistic vision of education in the public school where I taught. These were firstly, the work I did on myself to become more mindful and present as a teacher. Secondly, the work I encouraged my students to do on themselves in order to connect with their Self, develop greater mind-body awareness, and

promote the development of their multiple intelligences. I have discussed how I addressed these factors in the preceding chapters. In this chapter, I will analyze the third important factor, which focuses on the concept of connections or relationships. The benefits of developing and implementing curriculum around this conception of balance and connections is that schools do not place such an emphasis on literacy and numeracy that other subject areas, in particular, the arts, receive less emphasis. An emphasis on developing the whole child and a balanced and integrated curriculum encourages the development of every student's capacity for learning in all areas of the curriculum, not just in language and mathematics. If we are to help students become contributing citizens of a rapidly changing world, then it is clear that in schools teachers need to focus on such things as a healthy body image, arts education, environmental education, global education, information and communication technology. Education must be far-reaching, broad and address the needs of all students. It cannot be narrowly focussed on literacy and numeracy. Furthermore, education must be centered on student learning and not be narrowly focussed on assessment and evaluation. Unfortunately, more and more attention in education is given to assessment and evaluation, which is not the same as learning. Although assessment and evaluation can promote effective learning, it seems that the current trend in education gives assessment and evaluation too high a priority and this ultimately drives the curriculum. If as educators we concentrate solely on academics and on narrowly measured academic achievement, we fail to educate the whole child.

We deprive young people and limit their potential if we do not create places of learning that attend to every aspect of each student's capacity for learning.

As a teacher, when I develop curriculum for my students around connections, I select broad topics that address values in education, encourage children to help people and other living things in their local and global community, have social significance, and an ecological impact which fosters students' connection with the earth. I choose broad, fertile themes where it is possible to weave many subjects, incorporate many different types of learning, and develop students' multiple intelligences. In this section, I will discuss a few examples of how I have developed curriculum for students that integrates a variety of subjects, relies on multiple intelligences, cultivates all aspects of learners—physical wellness, intellectual growth, emotional well-being, spiritual growth, social competency, and artistic creativity. (Waterloo Region Roman Catholic Separate School Board, 1993) A curriculum that allows students' soul to thrive in the classroom brings life and vitality back into the classroom and gives students a sense of purpose in their learning and in their lives.

### ***Roots of Empathy***

About five years ago, I was fortunate enough to be the first teacher at my school to do the Roots of Empathy program with my students. This came about due to the fact that the parent of one of my students worked as a coordinator for the Roots of Empathy program and managed to convince the principal at that time to pilot the program in our school to see how it worked. I volunteered to try out the program in my classroom and found that it benefited my students in many

positive ways. Since then, the popularity of the program has grown and other colleagues at my school and in neighbouring schools have also introduced the program to their students.

The Roots of Empathy program was developed in 1996 by Mary Gordon (2007), a former classroom teacher in Toronto. It is a program designed to build caring, peaceful societies through the development of empathy in children and adults. A neighbourhood infant and parent visit the classroom once a month for the entire school year. A certified instructor helps coach students in observing the baby's growth and development. Students interact with the baby and develop a relationship with her. The program engenders compassion and kindness among children. My class of Grades 3 and 4 students looked forward to the Roots of Empathy instructor's weekly visits because it allowed them time to sit in a circle and openly discuss their feelings and opinions on a variety of topics that were of personal interest to them. They especially loved the Roots of Empathy baby's monthly visits. I was amazed to see the bond that this young baby was able to develop with each and every student in my class. The children eagerly looked forward to the baby's monthly visits. When she entered the classroom, they all greeted her lovingly and warmly. They were protective of her and displayed great joy and amazement in her development as she first learned to crawl and later started to take her first steps. With every visit, I noticed how the students became closer to the instructor and more connected with the baby as well as her parents. They wanted to know everything about her and asked many questions about what she did at home and what type of progress she had



made since her last visit. They drew pictures for her, made cards for her, wrote her nursery rhymes and story books, sang her songs, knitted her hats and scarves, brought her shakers and toys. It was incredible to see this small baby and the affection my students felt towards her grow with each passing month. I believe that programs such as these can truly create more caring, compassionate and empathetic children. By bringing a small infant into a classroom full of children and nurturing the bond that develops naturally between older students and this young, defenceless child, it allows many children to experience love and compassion. The bond they develop with the baby helps them extend this love and compassion to others. Many children in today's society where divorce and single families are rampant are deprived of love and I believe that this is one of the roots of violence in our society. All the children in my class, even those with behavioural problems, were able to reciprocate the love that the Roots of Empathy baby gave them. The students were able to identify with the baby and this is key to the development of empathy. I noticed that my students seemed to get along better with each other and there were far fewer instances of bullying among the children. For me, it was an awe-inspiring experience to witness the kind of love that grew in my classroom between my students and this little baby. This program is an example of soulful curriculum. It centers on the connection between self and community. It increases students' social understanding and emotional knowledge. It helps decrease bullying among children and helps create a more caring classroom environment. If empathy and caring were nurtured in all educational settings then we would be

able to create a more caring world where everyone would be respected and valued. In this type of setting, peace and justice might prevail and conflicts might be resolved in a more peaceful, non-violent manner. These values echo the words of Dr. Martin Luther King who believed that in the “beloved community,” the values of caring and compassion would drive policy toward the worldwide elimination of poverty and hunger, racism and all forms of bigotry and violence (The King Center, 2004). The Roots of Empathy program is an integrated form of education that focuses on the whole child: spiritual growth, emotional well-being, artistic creativity, moral decision-making, social competency, intellectual growth and physical wellness (Waterloo Region Roman Catholic Separate School Board, 1993). It is cross-curricular in its approach since students simultaneously use the arts to stimulate the baby through drawings and paintings that they make; stories, rhymes and poems that they write and read to the baby; songs that they sing to her; skits that they write and perform to entertain her; information that they read about the development of infants; growth charts and graphs which they examine, etc., etc. The Roots of Empathy program helps to develop empathy in young children. I saw how effectively it worked with the students in my classroom and believe it has the potential to create more caring, loving and lovable human beings, which should be a central goal of education. As Nel Noddings (1992) argues, “We must take public responsibility for raising healthy, competent, and happy children ... and school must play a major role in this task” (p. 14). Simply put, students cannot achieve their academic goals if they do not feel as if others care for them or if they themselves do not show

caring for others. I agree with Nel Noddings (1992) and feel that schools need to fill the affective void that some students face. In my experience, the Roots of Empathy program is an example of holistic education since it addresses the multiple needs of children and it nurtures caring and compassion. In my opinion, it is highly important to develop these qualities in young people. In fact, I believe that through this program, students can learn to relate better to themselves and others. It helps students realize that human beings are all interconnected. This idea of an interconnected reality and a fundamental unity in the universe is a basic principle of the philosophy of holism. The Roots of Empathy program helps students realize that there is unity among human beings and this awareness can lead to social action to eliminate injustice and suffering.

### ***Global Education***

Soulful learning can help children develop into more responsible citizens of the world. I believe that teaching from a spiritual perspective should help students develop a deep caring for other people, animals as well as the environment. In my teaching, I strive to create a deep love and respect in my students for the earth.

In my class, I try to help students become more aware of global issues that affect the environment. Gradually, students come to the realization that everything on earth is interconnected. About four years ago, I challenged my students to launch an idle-free campaign at our school. This came about because I noticed that school buses tended to leave their engines idling for several minutes while waiting for students to load the buses. I invited an

organization called Clean Air Partnership to speak to students about the environment. Students quickly targeted “idling” as an environmental problem at our school and posted the hallways and classrooms of the school with idle-free signs asking parents to “Stop Idling!” and reminded them that idling harms everyone’s lungs. I used the enthusiasm of my students to come up with idle-free activities as part of the Social Studies and Science curriculum. My students designed surveys on idling and then interviewed parents outside the school who drove to drop off and / or pick up their child. The students became junior social scientists and created tally charts to see how many people were idling. They also shared the results in the morning announcements as well as in the school newspaper. The school purchased an outdoor banner declaring, “Stop Idling – You have entered an Idle-free Zone” to greet motorists. The number of idling vehicles in front of the school dropped dramatically over the school year. This campaign helped my students learn more about the negative effects of carbon dioxide emissions. It gave them a goal and a sense of purpose: to reduce the number of idling vehicles at our school. As a result of their actions, they felt empowered because they were able to successfully reduce the amount of idling in our school community and that helped reduce the overall carbon dioxide levels in our global community.

Furthermore, the actions at our school created a ripple effect and other schools in Toronto and Windsor also began spreading the idle-free message. The idle-free campaign that my students and I launched at our school and its effectiveness is evidence to me that 8 and 9 year olds are up for a challenge and

will give back far more than you'd expect if you let them. In time, children in schools all across Canada could contribute significantly to reducing carbon dioxide levels in the air and thereby reducing pollution and the effects of global warming if we let them. Children are incredible social advocates and they are very eager to help the environment.

Three years ago, I viewed the documentary, "*An Inconvenient Truth*," produced by Bender, Burns and David (2006) and directed by Guggenheim (2006) in which the former vice-president of the United States, Al Gore, discusses the current climate crisis. In the documentary, Gore (2006) explains the facts of global warming, presents arguments that the dangers of global warming have reached the level of crisis, and addresses the efforts of certain interests to discredit the anti-global warming cause. Between lecture segments, Gore (2006) discusses his personal commitment to the environment, sharing anecdotes from his experiences. I was so moved by this film that I had to show it to my Grade 5 and 6 students so that we as a class could brainstorm ways to do more to help the environment. Once again, I hoped to raise my students' awareness of the global implications of local ecological problems. My class decided that we would start to attack the ecological problems in our school and then spread our attention outward geographically. One morning, we went out into the schoolyard equipped with latex gloves and garbage bags and began to clean up the schoolyard, both inside as well as all around the perimeter of the fenced yard. There were 24 students and every single one of them was highly committed to cleaning up the schoolyard. In one hour, we were able to fill 15

bags full of litter from candy wrappers, coffee cups and lids, napkins, and doggie doo to broken glass and containers with used motor oil. Later that day, as a class, we reflected on our experience. The students noticed that a lot of the garbage they found came from kids who ate their lunch outside in the schoolyard and did not put their garbage in proper receptacles. They also noted that there were fewer garbage cans outside than there were the previous years and, they noted the complete absence of recycling bins outside the school. This experience and students' reflections led them to develop an action plan. They filled the school hallways with signs encouraging students to keep our school beautiful by not littering; had our principal order recycling bins as well as more garbage bins for the school grounds, and prepared short skits to play over the announcements to raise awareness among the whole school community with regards to keeping our school beautiful and helping to keep our planet clean and healthy. Students were encouraged to pack environmentally friendly lunches and return whatever waste was left over to their homes where they could recycle and compost it. Students who took part in the cleaning of the school and designing an eco-friendly lunch program felt a sense of self-empowerment as the amount of waste at the school was significantly reduced.

Two years ago, primary, junior and intermediate students at our school participated in the Gulu Walk for the first time and this tradition has continued annually. The Gulu Walk is a grassroots movement that aims to bring awareness to a generation of children in northern Uganda, many of whom have had to walk about 10 km each day to find a safe place to sleep in order to avoid being

kidnapped and inducted into the Lord's Resistance Army as child soldiers in the country's 20-year war. I became involved with this movement because a colleague with whom I teach attended a film screening of the award winning Canadian documentary, "*Uganda Rising*" produced by Alison Lawton (2006), which brings awareness to the humanitarian crisis that has devastated northern Uganda for nearly two decades. A resident of Toronto, Adrian Bradbury, presented the screening of this documentary at a workshop sponsored by the Elementary Teachers of Toronto (ETT). Adrian Bradbury and another Canadian, Kieran Hayward, learned about the children in northern Uganda who walked from their rural villages into the town of Gulu and other urban centres to sleep in relative safety. The ordeal of these children sparked the idea for Gulu Walk. In July of 2005, Adrian and Kieran initiated Gulu Walk when they walked every evening and every morning for 31 days. Every evening, these two men walked 12.5 kilometres into downtown Toronto to sleep in front of City Hall. At sunrise, they walked back to their home. Both men continued to work full-time and maintained their daily routine. They did this in order to mimic the struggles endured by the unprotected Acholi children of northern Uganda and in order to draw much needed media attention to their plight. As a result of my colleague's reaction to this film screening, he engaged other teachers on staff to participate in the TDSB student Gulu Walk. Several teachers at my school practised walking with students every week, gradually increasing the length of the walks. Participating in the Gulu Walk taught students a great deal about compassion and global citizenship. My students felt a great sense of accomplishment and

pride as a result of their involvement in this worthwhile project to help innocent children in another part of the globe. As a teacher, it filled me with pride and awe to watch students who struggled to walk only a few kilometres when we first started our Gulu Walk training accomplish the 10 km walk down Yonge Street to Metro Hall. Through participating with their feet and their minds in this worthwhile initiative to show support for the abandoned children of northern Uganda, my students learned a great deal about respect, responsibility, empathy, kindness, caring, cooperation, integrity and perseverance, character traits they can take with them into adulthood. Although Gulu Walk started with the footsteps of just two people, it has grown into an impassioned worldwide movement for peace in northern Uganda that supports a generation of children being left behind. Gulu Walk is a practical way for teachers to engage students in a significant global issue that helps build character traits that will help children grow into responsible citizens and caring adults.

Global education is an example of teaching from a spiritual perspective. By acknowledging soul, we can ponder the big questions in life. A soulful approach to education allows education to become deeply relevant to the lives of children. I cannot imagine anything more relevant right now than saving the planet that billions of people call home. A soulful approach to education can help bring vitality and a deeper sense of purpose and meaning to the classroom. As a result of launching the idle-free campaign, the schoolyard cleanup at our school, and participating in the Gulu Walk, my students became more deeply connected with each other, the curriculum and the earth. They discovered a purpose for



their learning and felt empowered because the actions they undertook changed the attitudes and behaviours of the community at large. I believe that the reason global education can be such a powerful learning tool, and the examples discussed above illustrate this, is that learning in this way is a dynamic process in which the whole personality of the child becomes engaged. In the examples cited above, learning is not limited to passive absorption of facts or information, but involves intelligent action to *real* problems and situations faced in the local and global community. This type of learning is authentic and has a purpose. My students and I are hopeful that we **can** make this world a better place to live in and we are committed to this goal.

### ***Who is Nobody?***

Finally, I would like to discuss one other classroom program that I discovered which I believe embodies many of the principles of spiritual education. This program is called *Who is Nobody?* It was developed by Kelly Clark (2006), a classroom teacher in Toronto. It is a program based on character education that is designed to help students learn to respect themselves and others which develops personal and social responsibility. The classroom teacher receives a *Who is Nobody?* kit which consists of a denim doll ("Nobody"), a student manual, a teacher's manual, a binder, a scrapbook and a duffle bag. Over the school year, "Nobody," a genderless, featureless doll with no identity goes from being "Nobody", a doll with no character, to somebody who has lots of character as a result of the students' actions. Each week, one student takes the

*Who is Nobody?* bag home and follows the five *Who is Nobody?* steps. These are:

1. Choose a living thing (people, animals, the environment).
2. Use your interests and abilities to help living things.
3. Add a creative attachment to Nobody that represents your kind act.
4. Write a story and draw a picture about your *Who is Nobody?* experience.
5. Bring Nobody back to school to present to your class. (K. Clark, 2006, p. 57)

Each student shows “Nobody” how to become a “Somebody” by picking a living thing in the community to help: a person, animal or the environment. Depending on the student’s talents, skills or interests, he / she decides where, what, when and how to teach “Nobody” one of the many traits in this character education program such as courage, perseverance, or compassion by doing a good deed and taking action to help others. Once the students have had the opportunity to help “Nobody”, they attach a memento to the doll that represents what they have accomplished. As “Nobody” travels from household to household in the class, “Nobody” gradually becomes a doll with lots of character as a result of all the lessons the children teach “Nobody”.

The *Who is Nobody?* experience demonstrates to students how easy it is to help others. It is an example of holistic learning as well as spirituality in education since it encourages students to care about others as well as the environment and gives them a sense of purpose. My students picked from a

wide variety of experiences. Some volunteered their time helping to lay out beds and serve food to abused women at a women's shelter, others collected money to give to charities such as Raise the Roof which helps homeless people. Other students organized a bake sale at school to raise money for the Liver Disease foundation, Oxfam, and the World Wildlife Foundation. Other students collected books, toys and clothes around the community and donated these to the Salvation Army. Still other students decided to help animals in shelters by collecting old towels to bathe animals and wool and yarn for animal blanket knitters. Others helped the environment by cleaning up a local park and planting trees. In addition to their *Who is Nobody?* experience, students also create a one-page visual of what they did, which is compiled into a scrapbook that documents every child's experience. The children draw a picture, write about their experience, take a photo of themselves with "Nobody", reflect on and share their experiences with their peers. When the children in my class reflected on their *Who is Nobody?* experience, almost every single child in my class reported that it made them feel good to help people or animals in need and the environment. This program is an excellent way to help students find something that speaks to their heart and develop a plan to raise awareness in the community with regards to their topic. It engages students at all levels: their heart, mind, body and soul.

I strongly believe that this program should be adopted in schools everywhere in order to help students foster a love of others and the environment. It helps students engage in a service activity that is a form of spiritual practice,

which is at the heart of spirituality in education and holistic education.

Furthermore, it helps students look inside themselves and figure out what their passions are. This can help them discover their calling and help them realize their full potential in life. I believe it also helps students develop a sense of their own individual relationship to society. It helps them realize that there are shared values, despite religious and cultural differences. The *Who is Nobody?* program can, therefore, be used to promote holistic learning, spirituality in education, character education as well as career counselling. It is a multifaceted program that is also very easy to implement in the classroom by the teacher. It places much of the responsibility on students and so it is neither too taxing nor too time consuming for the teacher. It is a wonderful, practical way to bring a spiritual perspective into the classroom while addressing a variety of expectations in the Ontario curriculum.

### ***Integrating Curriculum and Approaching Mathematics Holistically***

One of the most significant changes in my teaching occurred when I moved from a traditional mathematics textbook program to an integrated approach to Mathematics. This approach allowed me to integrate almost the entire curriculum around mathematical concepts. I decided to meet the subject-subject connection that is characteristic of holistic education with a subject that seemed, to me at least, to resist integration and cross-curricular teaching. I used an approach called a Math trail because it allows children the opportunity to explore mathematical concepts in their school community which allows them to develop a deeper understanding of mathematics and its applications in the real

world while, at the same time, it also helps develop their connection with the surrounding community and the world at large. After researching a variety of Math trails, I designed a Math trail myself for my school community where I integrated all five Math strands of the Ontario curriculum: Number sense and numeration, measurement, geometry and spatial sense, patterning and algebra, and, finally, data management and probability. In addition to Mathematics, the Math trail integrated such curricular activities as reading, writing, oral speaking and listening, media literacy, visual arts, science, social studies, and physical education. Furthermore, students had to work collaboratively in small groups to solve a variety of open-ended problems. This allowed them to practise and develop their interpersonal skills with peers while communicating about Mathematics in the community.

Before discussing the Math trail that I created any further, I would like to provide an explanation for the reader. A Math trail is like a nature trail that encourages students to seek out the math in their environment or community. Math trails give students the opportunity to explore things around them and guide them to see the mathematical concepts in their surroundings. Math trails are holistic in nature in the sense that they connect students with the subject matter they are learning as well as with the community and the world around them. Math trails are excursions during which participants stop at predetermined points to work on solving mathematical problems in the environment. Questions may relate to the architecture of a building, shapes and shadows, numbers on

buildings, products in grocery stores, arrangement of tables, angles of hands on a clock...the possibilities are endless.

Math trails are about problem solving and making connections across mathematical topics or strands in the curriculum and between mathematics and other areas of the curriculum such as history, art, science, and language arts. Math trails offer concrete learning experiences for the mathematics concepts taught in the school curriculum. A Math trail can function as an ongoing tool for exploring different topics in mathematics, how they are interconnected, and how mathematics connects to other disciplines.

Math trails have many benefits. One of the great appeals of a Math trail is that it takes mathematical learning outside the classroom. To students, mathematics is usually seen as a sterile subject with little to do with the outside world. Many students fail to see the application of mathematics. They constantly challenge teachers by asking the age-old question “When are we ever going to use this math?” The truth is that math is everywhere and it is responsible for many of the things we take for granted. Math trails are designed to acknowledge the many contributions that mathematics has given to our modern world and they allow students to answer the age-old question for themselves.

Furthermore, because it takes place outside the classroom, a Math trail creates an atmosphere of adventure and exploration. This shared sense of anticipation and discovery naturally leads to communication of mathematical ideas. Students observe, measure, collect, and record data in order to manipulate and interpret it back in the classroom. While completing activities on

the trail, children use mathematics concepts they learned in the classroom and discover the varied uses of mathematics in everyday life. Above all, Math trails connect math to real-life. Math trails give students real reasons for learning mathematical concepts. Students collaborate in groups to discover solutions to problems and engage in creative thinking and problem solving. Math trails are an active way to engage students in a meaningful interaction with mathematical concepts.

Math trails can be very versatile and, as a result, it is possible to develop Math trails at any grade level and for any age. The mathematical questions on Math trails can easily cover all of the strands in the Ontario Mathematics Curriculum as well as the overall and many of the specific expectations found therein.

Math trails are a valuable, multi-faceted learning opportunity for students. They are also in keeping with current educational reform on mathematics teaching and the recommendations given in the *Curriculum and Evaluation Standards for School Mathematics*, published by the National Council of Teachers of Mathematics (NCTM, 1989). Math trails focus on developing students' creative thinking and approaches to solving problems. Students collect and sort data. They take measurements, make observations, estimate, guess, hypothesize, develop their own strategies and build upon their own and each other's knowledge to make sense of the mathematical world around them. They are not limited to following a standard procedure or memorized algorithm. Math

trails promote the development of inquiry, creative problem solving, high-level thinking, and understanding and build conceptual knowledge.

### ***Reflections on Designing and Implementing my own Math Trail***

As a holistic educator as well as someone who is entirely convinced of the merit of reform curriculum in mathematics teaching and also someone who loves being active and enjoys nature and the great outdoors, I believed that a Math trail would be an effective, holistic approach to deliver mathematical instruction and I eagerly developed one for the local community where I taught.

Firstly, I decided to develop a Math trail that addressed the expectations of the Grades 4 and 5 Ontario Math curricula. Since I would be teaching my four-year group of students in Grades 5 and 6 in the fall, I thought that a Math trail at the beginning of the year would be a perfect way to launch the Math curriculum in a very positive, interactive, student-centred and experiential manner. However, in order for students to be able to complete the trail in mid to late September then the questions would need to be based on the previous year's expectations. Hence, that is what I did. Therefore, the Math trail I developed for my class was a review of the mathematics they learned in Grades 4 and 5. To my surprise, it was relatively easy to cover all the major concepts taught with a few high-level math tasks that required students to show their mathematical understanding in a variety of different ways and to varying degrees.

I went to the school armed with my digital camera; a copy of the Ontario Ministry of Education (2005) Mathematics curriculum; the Nelson Mathematics textbooks for Grades 4, 5 and 6 (Kestell, M.L. et al., 2004, 2005, 2006) that



teachers used at our school; a pen and clipboard and scouted the area for potential sites rich in mathematics. As I considered a potential site, I tried to think about all the different strands in the math curriculum: Number sense and numeration, measurement, geometry and spatial sense, patterning and algebra, data management and probability. I looked around for patterns, shapes, things to measure, count, graph, clocks, and other things that presented mathematical challenges. To my delight, there were plenty of mathematical questions to be pondered in and around the school. I was careful to observe the area surrounding the school at eye level, ground level and above students' heads.

I took photographs of each site and recorded preliminary ideas on questions to develop. I loaded the photographs in my computer and sized them down to the appropriate dimensions for a word processing document. I wrote directions for getting to the sites and developed questions for my students to solve that would encourage them to discuss mathematical concepts, build on each other's knowledge and engage in creative problem solving strategies. I was determined to develop fun, interesting, challenging, high-level tasks. To ensure adequate time management, many questions also had further follow-up in the classroom. They led to more complex problem solving, classroom discussion and possibly even research. After completing the Math trail questions I created for my students, I asked them to create a mini Math trail in their group consisting of five questions. This was to stimulate their own creativity and form a basis for discussion when we returned to the classroom.

Creating this Math trail was indeed a major undertaking, but it was truly a labour of love. I designed this trail during the months of July and August of 2006. Yes, during my “time off”. Like so many dedicated teachers, I use this time for professional development and often take on larger projects during these longer periods of “time off” when I can slow down and actually think about what I do in the classroom, how I do it and why. Having two months “off,” is for me an invaluable amount of time to learn more about teaching and reflect on what I do as a professional. I still recall my principal’s look of bewilderment when he saw me scouting the schoolyard for potential mathematical problems. Later on, when I explained to him what I was doing, he was thrilled, but he admitted that, at first, he simply thought I really needed some time off. As I developed my questions, I delighted when I saw how seamlessly holistic theory and mathematical reform interwove in them and I was amazed at how the questions seemed to spring to my mind so effortlessly. I believe that when one is immersed in a task and is committed to it, it seems to emerge or flow almost effortlessly. I recall how pleasantly surprised I was with the eighteen interesting, real-life and meaningful problems related to students’ everyday life and the school neighbourhood that I designed. The problems touched on every strand in the mathematics curriculum as well as a variety of other subjects and in so doing, provided not only a superb review of the math curriculum from the previous year, but also, an excellent introduction to the math curriculum to be taught in the current academic year. I will examine a few questions in order for the reader to gain an understanding of how the Math trail is an example of holistic learning and demonstrate how each

question covered a variety of learning outcomes not only in Math but in other curricular areas. (For the complete Math trail, please refer to **Appendix F**).

For example, Question 2 is about joining picnic tables and I was inspired to write this question based on an article I read by Soares, Blanton and Kaput (2005/06), *Thinking algebraically across the elementary school curriculum*. In this article, Soares, Blanton and Kaput (2005/06) describe many “algebrafied” problems, that is, algebraic problems that are integrated with literacy and other subject areas (p. 229). They discuss the benefits of developing children’s algebraic thinking skills while integrating algebrafied tasks across the curriculum. They write, “Mathematics is everywhere. The teacher’s challenge is to build a habit of mind whereby students naturally think and see mathematically, especially outside of “math class” (Soares, Blanton & Kaput, 2005/06, p. 233). This is precisely what Question 2 does. It is an algebrafied picnic table problem that helps students develop a mathematical generalization using everyday language and objects. Hence mathematics is connected to students’ everyday lives and the school picnic tables provided a rich context for mathematical problem solving.

Another question, Question 6, is meant to educate students to become intelligent consumers. In this question, students need to be able to read food labels – a challenging task for many adults! -- and judge which cereal offers the most nutritional value while still having a low sugar and fat content. This is media literacy and mathematics being applied in everyday, real-world problems. As consumers, we are faced with hundreds of products on the market. We need to

be able to select the healthiest choices at the best price in order to survive in today's society, which is driven by the economy. In this question, students also estimate cost using money. Hence it is a question, which truly allows students to see the application of math in their daily lives.

Question 8 is related to data management. Students are required to take a survey of the motorists that idle their vehicles outside the neighbourhood grocery store, Happy Farms. This question was inspired by Ronau and Karp's (2001) article *Power over trash: Integrating mathematics, science, and children's literature*. A year earlier, at my school, as I mentioned above, my students and I conducted a data-supported campaign against motorists who idled their vehicles. My students took surveys of idling motorists in mid-November, before we launched the Idle-free campaign at our school. They also surveyed the idling motorists during our campaign and again after our prolonged Idle-free campaign in the community. The students plotted the results on graphs labelled *Before* and *After* to measure the success of the campaign. That sort of thought inspires this question. It is designed to help students learn how to manipulate real data. As Ronau and Karp (2001) note in their article, "Using real data is one way to help students move beyond concrete understanding of mathematical ideas to more abstract notions" (p. 30). This question permits students to make sense of their world by observing, collecting data and analyzing it. If students are able to collect and analyze actual data then they are in a better position to take action against idling or garbage problems in the environment.

Question 12 is a probability problem that integrates another subject from the curriculum, physical education. In this problem, students need to predict the probability of scoring baskets as a fraction. They also need to conduct an experiment that tests their predictions and calculate the average number of baskets scored for each group member. I wanted to integrate some physical activity into my Math trail to make it more fun, but also to show students that math is in everything, even sports which they love. I also wanted to encourage them to calculate the average score using their own, invented methods. Again, this is an example of how math can be integrated with other subjects to make the context richer as well as more appealing to students.

As one can see from examining a few of the questions above, a Math trail naturally integrates mathematics and other subjects in a meaningful, purposeful way. A Math trail allows students to see the bigger picture and how they fit into it. They begin to recognize patterns, make connections, experience relationships, and focus on understandings of a broader, deeper sense. Giving children the opportunity to explore mathematical concepts in their school community allows them to develop not only a deeper understanding of mathematics and its applications in the real world but also helps develop their connection with the surrounding community and the world at large.

In this holistic approach to teaching mathematics, there is another key objective in mathematics that is met: improved discourse in mathematics. A Math trail naturally creates a need for students to communicate mathematical ideas along the trail as they travel in small groups and look for solutions to the

questions. What is more, the mathematical discussions that arise when the Math trail questions are debriefed in the classroom are yet another good example of genuine mathematical discussions. As Van Zoest and Enyart (1998) remark, “A carefully planned question or a short, well-developed task can stimulate rich discourse that leads to greater mathematical understanding” (p. 155). Van Zoest and Enyart (1998) point out that “A few carefully worded questions or problems that lead to good discussion can be more mathematically productive and reinforcing than pages of repetitive problems done in isolation” (p. 155). The Math trail is a perfect example of this. It naturally leads to improved classroom discourse in mathematics.

In the fall of that year, I implemented the Math trail that I created over the summer with Grades 4, 5, and 6 students. I invited several parent volunteers to help supervise students during the Math trail. Their role was mainly to escort students from one site to another. I met with parents prior to the day of the Math trail to ensure that they were familiar with the route and would facilitate the learning process without giving too much help. The parent community at my school was very supportive and they were thrilled to participate in such an interesting activity. One parent questioned why we don't have more of these types of learning activities created by teachers. I found her question rather interesting and agree that these types of meaningful learning activities created by teachers for their students are a more personalized way of approaching curriculum that also makes learning far more relevant and purposeful.

I grouped students into heterogeneous groups of 3 to 4 students. They travelled through a predetermined set of questions on the route accompanied by a parent volunteer. By having students work in small groups, I hoped to encourage them to problem solve together and communicate mathematical ideas along the trail. Since I had many parent volunteers, I was able to float from group to group and observe their interactions. I noticed students worked collaboratively to find solutions to the math questions and that the Math trail questions engaged students in meaningful mathematical discussions as well as reasoning and reflection. Each group worked on a different problem and completed the question set in a particular order. This rotation allowed each group to work independently. Furthermore, each student in the group was assigned a different cooperative role such as recorder, facilitator, time keeper and encourager. These roles were rotated every three questions in order to allow every student the opportunity to experience each role in the group.

As a teacher I found it very rewarding to see how well my students took to the Math trail I created. Even some of my more reluctant Math students who insisted they did not like Math admitted they really enjoyed the Math trail. Here is an e-mail I sent to my OISE professor with whom I had taken a course, *Holistic Approaches in Elementary School Mathematics*, in regards to the Math trail that I implemented:

November 16, 2006

I just wanted to let you know that I tried out my Math trail yesterday with two classes, my Grades 5 / 6 class and another class of

Grades 4 / 5. We had 12 parent volunteers and 2 teachers. It was awesome! The kids had fun and the parents thought it was such a great idea. I will be sharing the Math trail with other junior teachers who want to use it. The number of problems was just right for a morning. It was a beautiful day and the kids loved doing Math outdoors. Hope you are well. I really enjoyed your course. It gave me lots of insights into Math and I explored some things that interested me in holistic education.

Many thanks,

Ana

She wrote back:

Hi Ana:

Just wanted to let you know that I put your paper in the mailbox only this morning rather than last night due to unexpected events yesterday, hope it's OK with you.

Before I sent your papers I glanced at it once again and got reminded of your highly attractive and well thought out math trail and the excellent accompanying paper. I am glad you are planning to share this trail with other junior teachers, this is a real treasure! I really hope one day you will become a leader in math education and/or a teacher trainer and will write for you an excellent recommendation letter if you ever need one for any job or program of studies.

All the best.



The feedback I got from students, parent volunteers, the school administrators, other teachers and my OISE professor with regards to the Math trail I created was all very positive. As a teacher, I found it very empowering and rewarding to act as a curriculum planner and reflect on how I used the Ontario curriculum in my classroom.

This discussion leads me back to the Ontario Ministry of Education (2005) Mathematics document. This document supports a holistic vision of education. It underscores the importance of cross-curricular learning:

Experiences that allow students to make connections – to see, for example, how concepts and skills from one strand of mathematics are related to those from another – will help them to grasp general mathematical principles. As they continue to make such connections, students begin to see that mathematics is more than a series of isolated skills and concepts and that they can use their learning in one area of mathematics to understand another.

Seeing the relationships among procedures and concepts also helps develop mathematical understanding. The more connections students make, the deeper their understanding. In addition, making connections between the mathematics they learn at school and its applications in their everyday lives not only helps students understand mathematics but also allows them to see how useful and relevant it is in the world beyond the classroom. (Ontario Ministry of Education, 2005, p. 16)

The quotation above is clearly in harmony with a holistic vision of education. It underscores the importance of developing “connections” between subject matter and stresses the importance of developing the “relationships” among procedures and concepts. These “connections” and “relationships” are one of the founding principles of holistic education.

Another important idea that the Mathematics curriculum document above supports is the use of “rich problems” in order to provide students with a variety of opportunities to develop mathematical understanding through problem solving. (Ontario Ministry of Education, 2005, p. 24). The Math trail discussed above is a good example of how teachers can create a variety of rich problems that cover a wide range of mathematical concepts.

Finally, the Ontario Ministry of Education (2005) Mathematics curriculum document also encourages teachers to explore a variety of teaching strategies to promote learning.

Effective instructional approaches and learning activities draw on students’ prior knowledge, capture their interest, and encourage meaningful practice both inside and outside the classroom.

Students’ interest will be engaged when they are able to see the connections between the mathematical concepts they are learning and their application in the world around them and in real-life situations. (Ontario Ministry of Education, 2005, p. 25)

In his book, *The schools our children deserve*, Alfie Kohn (1999), challenges traditional schooling based on rote learning of facts and acts as an

advocate for education that promotes critical, creative thinkers. Similar to the Ontario Ministry of Education (2005) Mathematics curriculum document which supports learning that is based in “real-life situations” (Ontario Ministry of Education, 2005, p. 25), Kohn (1999) also insists on the use of a realistic context for learning. He states that, “This idea of using skills in a realistic context offers a refreshing alternative to the conventional high school or middle school curriculum, too” (Kohn, 1999, p. 148). Kohn (1999) further states that, “This approach to learning isn’t a matter of gluing an occasional activity onto the regular curriculum. It replaces the regular curriculum, turns it inside out, incorporates facts and skills in the service of doing something that is as real and practical as it is intellectual and scholarly” (p. 148). The Ontario Ministry of Education (2005) Mathematics curriculum document, holistic education and Alfie Kohn (1999) all seem to support education that leads students to see the “big picture”, is experiential, problem based and leads to social action.

Furthermore, allowing teachers the opportunity to plan and implement their own curriculum allows teachers to share a greater responsibility in the learning process. It allows teachers to feel more engaged with the curriculum as well as their students’ learning. I have shown that the guiding principles underlying the Ontario Ministry of Education curriculum documents (1998, 2004, 2005, 2006a, 2006b) for program planning are holistic in nature and, for me, as an educator they are far more relevant than the long list of overall and specific curriculum expectations that accompanies each grade and that every child is

expected to meet no matter what and in spite of ability, aptitude, cognitive development, linguistic and cultural background, motivation and special needs.

The teaching and learning experiences that I described in this chapter are a model for holistic practice in public education. All areas of holistic learning were touched: intellectual, physical, emotional, and spiritual. My own experiences in reworking the Ontario curriculum to make it more holistic demonstrate that the expectations of a standardized curriculum, which can be rather prescriptive, can nonetheless be addressed in a creative and soulful way if the teacher is truly committed to the principles of holistic education.

A holistic curriculum seeks a balance in education between the inner world of the student and the outer world of school subjects. By honouring each child as a unique individual possessing his / her own special qualities, introducing the community into the school and extending the school into the community, it is possible to deliver a holistic curriculum where there is a balance between student inquiry into important issues – both personal and social. My own personal experiences outlined in this chapter demonstrate that holistic education can be brought more directly into public education by teachers who share a holistic vision of education and endeavour to give the mainstream Ontario curriculum a deeper dimension by bringing attention, caring, compassion, and social action into current pedagogical practices.

In conclusion, I would like to reiterate what John Miller and Drake (1990) have said about implementing a holistic curriculum,

A holistic approach can be incorporated into public school practice.

The necessary ingredients are a holistic vision of education, a recognition of the intrinsic connections in experience, and a staff working together to nurture the healthy development of young people. (p. 27)

As an educator committed to a holistic vision of education, it has been my experience that there is sufficient flexibility within the Ontario curriculum to allow for a holistic, spiritual and soulful curriculum to emerge. As a teacher trying to deliver a holistic curriculum, I have focused my attention more on the processes of learning rather than on the content. I have found that the overall and specific Ontario curriculum expectations for each grade can be woven into broad, fertile themes and learning goals that allow for big questions related to all aspects of the curriculum and deep connections – personal and social -- to emerge.

Finally, implementing a holistic curriculum is more than just integrating school subjects or disciplines across the curriculum. It is about developing caring learning communities where students feel safe to ask questions of a personal and social nature, where students are encouraged to discover who they are and what their unique contribution to society might be. My teaching experiences with the Roots of Empathy program, Global education, the Gulu Walk, Who is Nobody?, and the Math trail are all examples of holistic learning that integrate the Ministry of Education guidelines and the Ontario curriculum expectations. Relevant, meaningful curriculum leads students to learn at a deeper level that

touches not only their intellect, but also their body and spirit. In my opinion, it is this type of soulful curriculum that is needed today more than ever before in order to prepare students to meet the personal and social challenges that they will face throughout their life and help them develop to their fullest human potential in order to lead happy, healthy lives.

## Chapter Seven

### ***The Challenges of Implementing a Holistic Curriculum: Reflections on the Tensions between Holistic Education and the Ontario Curriculum***

*Bureaucracy defends the status quo long past the time  
when the quo has lost its status.*

-L.J. Peter

The curriculum that is delivered in schools can help nurture students' development and educate children in a more broadly conceived notion of teaching and learning if educators adopt a holistic vision of education and focus less on overly prescriptive, outcome-based education. The current Ontario curriculum is an example of performance-based pedagogy. It focuses far too much on the narrow product of learning. Lists of set curriculum expectations, reporting on student achievement, competition and standardized tests drive the Ontario curriculum. The fragmented lists of expectations to be achieved in each subject for every grade render the curriculum rigid and thus allow teachers far fewer opportunities to integrate subjects across the curriculum and teach using a holistic approach. This recipe list of expectations to cover in every grade is a piecemeal approach to curriculum, which thwarts creativity, spontaneity, and ultimately learning. The focus of the Ontario curriculum on over planning, content, achievement of provincially mandated expectations, and standardized testing does not allow children to consider the wholeness of the human experience and desperately needs to be revised if educators are to teach from a holistic perspective where all aspects of human life, which are fundamentally interconnected, are respected and valued. Education must be concerned with

the physical, emotional, social, aesthetic / creative, and spiritual aspect of every person, ***in addition to*** the traditionally stressed intellectual or rational dimension. Holistic educators do not seek to eliminate the need to teach the basics, or important knowledge. They simply recognize that education needs to be more broadly conceived in order to help the children in our schools develop into mentally, physically, and emotionally healthy, well rounded individuals with a reverence for life and who are sensitive to the needs of others in society, the state of our local community, the global community, and our planet.

### ***Some “Problems” with Holistic Education***

The holistic view of education poses two main problems within the context of public education. Firstly, many wrongly equate spirituality with religion. While spirituality can be interpreted as the soul by some, it can also refer to the inner Self or, more generally, as that mysterious quality at the core of our being that gives us life which some believe to be finite while others believe to be immutable. To discover one's spirituality is to connect with that life force and acknowledge the strength and wisdom that it affords us as human beings.

Secondly, many would argue that schools are not a suitable place to address issues of a spiritual, emotional or moral nature. They would argue that such education is the responsibility of parents or the Church. This is where I would strongly disagree. I believe that school curricula must serve the needs of the children that we teach. If schooling is solely for the purpose of increasing students' intellect then that is a very narrow vision of education that only values the rational intellect of human beings and denies all other aspects of our



humanity. Furthermore, children spend much of their time in school. Many families live in distress with financial burdens, emotional upheavals and unrealistic demands of their time. For many children, schools may be the only place where all their developmental needs can be addressed whether spiritual, emotional, artistic, moral, social, physical or intellectual. I believe that schools are indeed a suitable place to address spiritual, emotional and moral issues since the children that we teach are human beings with a variety of needs that are not limited to their intellect. In fact, I would go so far as to argue that this may be one reason why there is so much violence in our mainstream public schools today. I believe that many students feel frustrated and angry because, often times, the curriculum does not reflect who they are: their culture, ethnic background, socio-economic position, religion, first language, or sexual orientation. When students' needs are not carefully considered, educators take away students' voice and, as a result, students feel disempowered. I believe that holistic education, with its fundamental commitment to human growth, has the potential to address every student's needs including minority students, homosexual students or otherwise disadvantaged and oppressed groups. Holistic education values diversity and cultural pluralism. I believe that holistic educators must have the courage to bring harmony and balance into the mainstream curriculum.

### ***The Ontario Curriculum's Limited Vision of Education***

The Ontario curriculum is driven by lists of overall and specific expectations for each subject and for each grade. This outcomes-based approach to learning that focuses on measuring learning outcomes and global

standardized tests to measure success or failure of education presents a very limited view of education in my opinion. As Wien and Dudley-Marling (1998) note, the Ontario curriculum fails to acknowledge the experiences of either learners or teachers and it treats diversity and ecology in a superficial manner. Furthermore, it is inscribed in contradiction. On one hand, the document professes to be integrative and holistic in nature. For example, the Ontario Ministry of Education (2004) Social Studies document advocates for the following teaching approach:

To make their program interesting and relevant, [teachers] must relate the knowledge and skills gained to wider issues and problems... It is essential to emphasize the relationship of social studies, history, and geography to the world outside the school so that students recognize that these areas of study are not just school subjects but fields of knowledge that affect their lives, their communities, and the world. (p. 14)

On the other hand, the long lists of endless expectations to cover makes implementing a truly integrative curriculum a daunting task for any well-intentioned, holistic minded teacher. While the preamble in the Ontario curriculum documents seems to support an integrated approach to teaching and learning, the exhaustive lists of overall and specific expectations that students “will” achieve at the end of each grade are excessively prescriptive and make it virtually impossible to truly integrate knowledge or learning across all subjects. I would agree with Wien and Dudley-Marling (1998) when they reflect that “the

implementation of outcomes-based learning as fragmented lists of discrete items paralyzes broader, more integrative directions in education” (p. 408).

Furthermore, the preamble in the Ontario Ministry of Education (2004) curriculum document also apparently values diversity, multiculturalism, a plurality of literatures and histories, but, again, this is superficial since, in reality, the document focuses on the literature, history and issues that relate to the dominant Western culture. If we examine the Ontario Ministry of Education (2004) Social Studies document, for example, it is clear that the majority of what is to be studied relates to Western and European cultures. While the document professes to be inclusive, there is, again, an inherent contradiction when one examines the lists of expectations to be covered which “privileges the knowledge of those already privileged” (Wien & Dudley-Marling, 1998, p. 413).

Cardiero-Kaplan (2002) reflects that “In elementary school, children are exposed to the functional, cultural, and progressive literacy ideologies” (p. 378). A functional literacy ideology is seen in a curriculum that teaches students the necessary skills to become productive members of the workforce. A cultural literacy ideology is seen in a curriculum that validates the dominant Western culture and only legitimates knowledge that is associated with being a well-educated citizen. This type of literacy prepares students who belong to the dominant Western culture to become the future leaders of society and, therefore, reproduces the privilege of the already privileged class. A progressive literacy ideology engages learners in the reading and writing process from a personal perspective, however, this type of literacy fails to address the plurality of

students' culture or critically engage them with socially constructed literacies (Cardiero-Kaplan, 2002). I would argue that in the Ontario curriculum, it is possible to note the presence of all three of these types of literacies and that, depending on schools' socio-economic status, they adopt one or another ideology. For example, low socio-economic schools will adopt a functional literacy ideology in order to prepare their students for the job market while middle to high socio-economic schools will adopt a cultural literacy ideology in order to prepare students of the dominant Western culture for positions of leadership and thus promote the status quo. Cardiero-Kaplan (2002) advocates for a critical literacy ideology. In a curriculum informed by this ideology, teachers promote classrooms that value student voices, experiences, and histories. "Teachers are no longer dispensers of knowledge, promoting only one canon or belief, but agents of change, assisting students in seeing themselves within the larger historical, political, cultural, and economic structures where student voices exist" (Cardiero-Kaplan, 2002, p. 379). Such a curriculum engages students critically in meaningful dialogue and reflection. In my opinion, holistic education addresses the needs of the language arts curriculum in a coherent manner since it includes all four of these literacies. Holistic education supports a balanced approach to literacy where skills and drills; multiple literacies as well as critical thinking skills are all validated. Holistic educators believe there is a place for different types of learning and teaching and the holistic model of education adopts transmission learning, transactional learning as well as transformational learning which can be directly related to a functional literacy ideology, a progressive literacy ideology,

and a critical literacy ideology. Furthermore, holistic education, does not seek to maintain the status quo but rather to improve the quality of every students' life through a responsive curriculum that nurtures every student's needs and interests.

### ***Tensions between Holistic Education and the Ontario Curriculum***

Another criticism to the Ontario curriculum is that the lists of observable, measurable expectations override the goals of learning. I have often felt some tension between my holistic vision of education and the Ontario curriculum when I am obligated to cover expectations in the curriculum in order to report on them. Often times, mostly because of the lengthy lists of expectations, compared to the time the school day actually affords teachers to address them, I have selected outcomes and connected these to activities or tests but, not necessarily to deep learning. The Ontario curriculum focuses too heavily on the product of learning, e.g., the learning outcomes, to the detriment of the process of learning, e.g., deep learning activities. This is a mechanistic view of learning, which is in clear opposition with holistic learning; however, teachers, like myself, are often forced to teach in this manner in order to report on student achievement. I will have more to say about the provincial report card later on.

Wien and Dudley-Marling (1998) argue that the Ontario curriculum presents the learner as an active learner engaged in enquiry, however, the lists of what "students will" do at specific grade levels, creates a shift in the learner "from active participant to passive recipient" (p. 408). The learner who is expected to achieve the expectations of the Ontario curriculum is not engaged in

inquiry-based learning but is rather, a receptacle for knowledge. This is yet another tension felt by holistic teachers since a holistic vision of education advocates for a varied approach to learning where all three models of teaching: transmission, transaction, and transformational are interconnected. On the other hand, the skills sets outlined in the Ontario curriculum for every student to achieve favour the traditional transmission approach to learning where there is a one-way flow of skills and knowledge from the teacher to the student. In this type of learning situation, there is little opportunity for students to interact with the curriculum, reflect on or analyze the value of information.

The Ontario curriculum, because of its endless expectations, dehumanizes and demoralizes students and teachers alike. Following lists eliminates creative thinking and reflection. Therefore, the art of teaching is lost and teachers merely follow the Ontario curriculum's recipe for learning with all its inherent contradictions and flaws.

Another tension between holistic education and a standardized curriculum is that the Ontario curriculum treats issues related to the earth and the environment in a very superficial manner while holistic educators seek to teach students to respect the earth and revere life. In order to remedy this, the Toronto District School Board (2004) has published a number of resources related to EcoSchools around topics such as ecological literacy, waste minimization, energy conservation, and school ground greening. These are guides designed to support schools in the implementation of the TDSB EcoSchool program. The TDSB (2004) *Ecological literacy guide for waste minimization* states

“expectations have been selected and clustered to *uncover the potential* [italics added] in the curriculum for *teaching with the environment in mind*” (Toronto District School Board, 2004, p. 3). This guide is one in a series of ecological literacy guides that make up the classroom component of EcoSchools. They offer teachers a new lens for seeing the environmental learning possibilities in the Ontario Ministry of Education (2004) curriculum document. Clearly, the Ontario curriculum is rather obscure with respect to ecological issues and treats them in such a superficial manner that school boards like the TDSB felt the need to develop guides to *uncover the potential* within the curriculum to address these issues. In my opinion, the Ontario curriculum’s lack of focus on the Earth and ecological issues is shameful since the document fails to adequately address what is, in my opinion, one of the most important topics in the Social Studies and Science curriculum of our time if we consider the present state of our ecosystem.

### ***Pressures Faced by Holistic Teachers***

Writing report cards and administering large-scale standardized tests such as those developed by the Education Quality and Accountability Office (EQAO) agency within Ontario’s education system are perhaps the two greatest obstacles to implementing a holistic vision of education for the holistic teacher.

Standardized tests are not a true measure of learning. They are used to measure only a narrow product of learning: the acquisition of basic skills and information. They are based on a consumer model of education that emphasizes global competition, economic and political power rather than cooperation, personal and social growth. The current obsession in education with testing and

test scores is counterproductive to learning. Holistic education is concerned with true learning involving the whole person, deep connections and contemplation. As a holistic teacher who has taught students in both Grades 3 and 6 and prepared them for EQAO tests in both grades, I have found that standardized tests are in complete contradiction with a holistic vision of education. It is one aspect of the Ontario curriculum that holistic educators cannot be flexible with. In my own personal experience, I have not been able to integrate holistic education principles with preparing students for EQAO tests or while administering such tests. This is one aspect of the Ontario curriculum that completely resists a holistic vision of education and where there is no space to teach holistically.

Furthermore, a great deal of class time is spent by teachers helping to prepare students for this global test in Grades 3, 6 and 9. When I first started administering EQAO tests, helping students prepare for the EQAO test was considered to be teaching to the test, however, nowadays, preparing students for EQAO tests is considered to be an integral part of the curriculum. EQAO data and scores drive the curriculum in schools because many elementary schools plan curriculum around the EQAO data scores in Grades 3 and 6 from the previous year. For example, in the school where I taught, the EQAO data scores in the language test indicated that many students had lower scores in questions that related to making inferences about a text. As a result, there was a significant amount of in-school professional development dedicated to improving student performance on these types of questions. Teachers were instructed on how to teach students to write appropriate responses to these types of inference



questions. Teachers were encouraged to provide students with a one-size fits all model for writing responses to literature, both fiction as well as non-fiction. It was called the **RASER** model and looked like this:

**R**ephrase the question

**A**nswer the question

**S**upport with evidence from the text

**E**xtend with personal examples

**R**eflect on the big idea in the text

(Adapted by the TDSB, 2008)

In order to help students achieve better results on the EQAO test, I was expected to teach this type of writing, which only teaches students how to respond to one type of question. It does not teach them how to think critically or, more importantly, how to ask the right questions in order to analyze the value of information. By focussing student learning on improving EQAO test scores, schools are limiting students' learning to acquiring basic skills and information. This is a very restricted vision of education that is in complete contradiction with holistic education, which holds a broader conception of teaching and learning. It is not that learning how to answer questions on a test is not a good skill to learn in school, the problem is essentially that that is really all that EQAO tests actually prepare students to do: answer questions. EQAO tests do not promote real in-depth learning or help students learn how to ask critical questions which, in my opinion, is far more important than learning how to answer questions on a test. Not to mention what EQAO testing does to student morale and how effectively it

stamps out any joy or excitement towards learning, which, again, is in opposition with a holistic vision of education, which encourages students to connect with the curriculum in a personally and socially meaningful way. The current trend in education which affords an undue amount of attention to EQAO data and scores drives the curriculum in schools and it is a great source of tension and pressure for holistic teachers since this focus on testing and test scores is not in line with holistic principles in education which value a much broader conception of teaching and learning. Furthermore, preparing students for the narrow skills sets that EQAO tests measure takes away valuable class time that teachers could spend teaching more valuable knowledge that would lead to more coherent understanding and broader learning aims.

Finally, another source of tension for a holistic teacher is the student evaluation process and the provincial report card. In a holistic classroom, report card marks would be replaced with anecdotal comments that describe students' growth and development throughout each term. Assessment would focus on students' individual growth and progress. For example, teachers would compare where a student starts out in Grade 4 with respect to reading or writing to where that student ends up at the end of a term and measure his / her individual progress as well as his / her effort. Currently, the evaluation process involves measuring students' performance using marks on tasks or scores on tests and comparing those to a provincial standard that has no relevance to the individual student. This type of assessment, which measures students' achievement in relation to standards set by the province, is very arbitrary and relatively

meaningless. It is not a measure of learning; it only rates student performance and serves to rank learners. This type of evaluation promotes unnecessary competition, which should not have a place in educating the young and it cripples the learning process. This is yet another example of where the Ontario curriculum is not flexible since whether or not one holds a holistic vision of education, one is still legally obliged to grade students and report marks to parents. In a holistic classroom, learning portfolios would be used as an assessment tool. These would include key pieces of student work in a variety of curricular domains (literacy, numeracy, the arts, social studies, history, geography, science) selected by the student as well as the teacher in order to effectively demonstrate the personal growth, effort and progress of each student. As a holistic teacher, I believe that this sort of assessment would paint a far better picture of student achievement than test scores and marks. This type of assessment is far more personal and would be far clearer for parents to understand than the current trend in reporting to parents, which is to use rather vague modifiers and descriptors in order to describe student achievement. The current report card writing system is not personalized and the student evaluation process does not adequately reflect the progress of individual students in the classroom nor does it value their efforts. It is a generic approach to reporting to parents and, in my opinion as a parent, it tells me very little about how my child is actually doing in school. Furthermore, when learning is viewed solely as student performance then some high achieving students will not need to make much of an effort in order to obtain high grades while others, despite a great deal of hard

work, will always fall short of the provincial standard and they will eventually become unmotivated learners. Education that only values performance not effort or growth will not drive students to do their personal best and can be punitive for students who do not excel in academic subjects such as language arts and mathematics.

In a holistic school, traditional parent-teacher interviews would be replaced by a more holistic approach to reporting to parents. Students could lead conferences about their personal growth where they could discuss their learning and / or personal goals and how critical pieces of work from their learning portfolio show how they are meeting these goals. Students would also have the opportunity to consider new goals at the student – parent – teacher conferences in collaboration with the teacher and their parent(s) and reflect on some strategies that might help them meet these new goals. In such a conference, teachers, parents and students would all have the opportunity to discuss the student's overall growth, not just his / her intellectual successes or shortcomings and behaviour in the classroom. This type of student – parent – teacher conference would allow students to participate in the evaluation process, give them the opportunity to reflect on their work and set new goals. Furthermore, it would allow parents to gain a better global understanding of their child's progress at school and give them the opportunity to help identify some goals for their child.

Finally, another tension between holistic education and a holistic vision of education is the hurried approach to learning seen in schools today. More and more competencies are added to the already long lists of expectations to cover in

an overburdened curriculum. With extra demands being placed on the curriculum by standardized tests and reporting marks, teachers have less and less time to devote to studying topics in-depth and learning becomes superficial and ultimately meaningless. What is needed is a focus on broad, rich themes so that more time can be devoted to studying important topics in depth. This hurried approach to learning is another source of tension since a holistic vision of education values timeless learning and extols the virtues of slow learning. John Miller (2006) tells us that like holistic education, “Slow education encourages students to pursue questions in depth and not skip quickly through a curriculum of unrelated facts” (p. 108). By cramming the curriculum in schools, we are sacrificing students’ understanding. Holistic teachers believe students can get more out of their education by focussing on less.

In the previous chapters, I examined the practices and strategies that I developed as a holistic teacher while working with the Ontario curriculum in order to make it more holistic. These are examples of where there is enough flexibility in the standardized curriculum to create a space to teach holistically. The changes included developing spirituality in the teacher and the students, establishing integrated curriculum, and promoting community connections. In this chapter, I have examined the tensions and pressures of implementing a holistic curriculum in mainstream education. Standardized tests such as the EQAO and the provincial report card are two examples from the Ontario curriculum wherein there is not a great deal of flexibility and consequently, no space to teach a holistic curriculum. In a truly holistic school, these two practices

would need to be examined further and likely changed. That being the case, it is, however, noteworthy that over the four years that I have taught students in Grade 6, the EQAO scores at my school have steadily increased in reading, writing and mathematics. Although this is a qualitative study not a quantitative one, it is, nonetheless, interesting to note that teaching my students holistically has brought about improved test scores on the standardized EQAO test year after year. In fact, in the Spring EQAO test of 2009, my Grade 6 students achieved a remarkable 100% on the EQAO Mathematics test, which means that every student in my class was deemed to be at the provincial standard in Mathematics. Based on my own success in improving my students' EQAO test scores in Language and Mathematics, I believe that further research on the benefits of teaching curriculum holistically would be of great interest to educational researchers, educators and policy makers alike.

While it is undoubtedly true that many teachers, schools and school boards manage the Ontario curriculum effectively and successfully afford their students a broader view of teaching and learning, I will argue here that, unfortunately, this is not always the case and that our children deserve far better. It is time that educational theory is brought into the mainstream of education and that the fundamental principles of holistic education such as respecting diversity, the integrated nature of the universe, the human experience and learning, and developing critical thinking skills be consistently addressed throughout the curriculum documents not just in their preamble.

## **Chapter Eight**

### ***Conclusion and Implications***

#### ***Conclusion***

The world's largest professional association of educators, the Association for Supervision and Curriculum Development (ASCD) known throughout the profession for identifying educational trends, has identified a vision for education reform that identifies the whole child as its priority for educational change. When the ASCD (2007) issued the report of the Commission on the Whole Child, the following words resonated:

Our current well-intentioned focus on academics is essential.

Global economics require that each citizen be prepared to live in and contribute to a worldwide community of shrinking size and growing complexity. If, however, we concentrate solely on academics and on narrowly measured academic achievement, we fail to educate the whole child. We shortchange our young people and limit their future if we do not create places of learning that encourage and celebrate every aspect of each student's capacity for learning. We can do more and we can do better. (p. 6)

Based on this report, the ASCD (2007) initiated a campaign focusing on the need to broaden the idea of what it means to be well educated. The campaign is based on five principles:

- ❖ Each student enters school healthy and learns about and practices a healthy lifestyle.

- ❖ Each student learns in an intellectually challenging environment that is physically and emotionally safe for students and adults.
- ❖ Each student is actively engaged in learning and is connected to the school and broader community
- ❖ Each student has access to personalized learning and is supported by qualified, caring adults.
- ❖ Each graduate is challenged by a well-balanced curriculum and is prepared for success in college or further study and for employment in a global environment. (ASCD, 2007, p.9)

Although many professionals agree that education must include and go well beyond teaching students to read, write and do math, it takes action on the part of educators in order for academic settings to develop whole children or whole adults. This is precisely the topic of my thesis. I felt the need to act in a fundamentally different way in order to address every aspect of my students' potential for learning. I was able to find a vehicle that facilitated this journey in breaking new ground in public education and that was through the medium of holistic education. This qualitative inquiry sought to articulate and understand my professional development as a holistic teacher when I designed and implemented a holistic curriculum for the public school students whom I taught that focussed on nurturing all aspects of the child: intellectual, emotional or affective, physical, social, aesthetic, and spiritual in a caring learning environment. This study further sought to articulate how holistic educational



practices can be introduced in mainstream, public education and it also analyzed the tensions and challenges that marrying the two educational practices causes.

In the end, this inquiry showed that the Ontario curriculum and holistic education share many commonalities and are, therefore, entirely compatible. A customized holistic curriculum for public education is quite possible and it has the potential to fulfill a child's wholeness by allowing students to discover their relatedness and connection to nature, others, and to the spirit.

This study found that a holistic curriculum is possible when the teacher is authentic and engaged. This inquiry revealed that as I learned to educate for the growth of the whole child, I too evolved as both a person and professional in the process and eventually reshaped the ways in which I and my students experienced teaching and learning.

By adopting a holistic vision of the Ontario curriculum, it is possible to better meet the needs of **all** students, not just students who belong to the dominant group and possess cultural capital as well as economic privilege, but students who belong to different cultural, ethnic, and linguistic backgrounds and are culturally as well as economically disfavoured. I believe holistic education with its deep concern for developing the *whole* learner has the potential to address individual student's needs and give education back to students so that education and schools can refocus on meeting the needs of students rather than the needs of the economy or society. Education should not be reduced to merely an intellectual journey, but must engage the entire being. This type of engagement is at the heart of holistic learning and this type of learning is more

likely to produce students with a broader vision of education. In a world increasingly in need of creative solutions to a wide array of global challenges, it is more important than ever for students to receive a well-rounded education that engages their entire being: mind, body and spirit, where they will gain not only knowledge, understanding and skills, but also develop their imagination and learn about compassion and self-empowerment.

### ***Implications***

This research addressed my own questions about my professional development as a holistic teacher in my particular educational context. But more importantly, it has allowed me to construct research, which facilitated much needed professional dialogue about holistic teaching and holistic teacher development within the parameters of public education. The findings from this study may be meaningful for informing teacher education programs seeking to train teachers in holistic education or for holistic teacher development programs for future holistic public schools like the one opening in September 2009 in the Toronto District School Board. Broadly, this inquiry contributes to a relatively thin body of research about educators working within holistic frameworks in mainstream education. Finally, this research reinforces the idea described by both John Miller (1996) and Palmer (1998), which is that the development of authenticity is an integral part of good teaching.

This research has implications for policy makers too. It shows that teaching cannot be reduced to a set of skills or techniques, nor can curriculum be reduced to a laundry list of expectations for students to achieve, nor can learning

be narrowly measured by students' academic performance. Holistic education can certainly be achieved in the public sector, but, in order for it to become less marginalized and so that schools can truly educate to transform, policy makers should trust teachers' professionalism far more and give school boards, administrators and teachers greater autonomy in developing and implementing curriculum. Holistic education recognizes that teaching and learning cannot be packaged, but are responsive to every child's diverse needs. As a final note, I would like to reiterate the words of John Miller (2005) since I believe that they very eloquently capture the potential that all educators have to develop teaching methodologies and curriculum to address human growth which I believe should be the ultimate goal of education:

Perhaps most important, as teachers, we can honour the quest of all students to find what gives their life meaning and integrity, and what allows them to feel connected to what is most precious for them. In the search itself, in loving the questions, in the deep yearning they let themselves feel, young people will discover what is sacred in life, what is sacred in their own lives, and what allows them to bring their most sacred gift to nourish the world. (p. 106)

### ***Directions for Future Research***

This research was primarily interested in exploring my professional development as a holistic teacher within the normative boundaries of public education and examining the development of holistic educational practices within my particular context. Future research might benefit from examining the

development of other holistic educators in public school settings or within a public holistic school. This research might be of interest to readers wanting to learn more about how to implement holistic teaching practices in the public school system. Furthermore, conducting relevant and responsibly documented research will add to the thin body of literature in this field and it will likely help assist in the expansion of holistic educational practices in mainstream education.

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## Appendix A

### IN DEPTH

#### Apology reaction

## Putting the pain behind them

*Last Updated: Wednesday, June 11, 2008 / 7:28 PM ET*

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By Brian Kemp, [CBC News](#)



*Prime Minister Stephen Harper officially apologizes in the House of Commons for more than a century of abuse and cultural loss involving residential schools on Wednesday. (Tom Hanson/Canadian Press)*

Aboriginal Canadians flew to Ottawa from thousands of kilometres away, they gathered by the hundreds around the country and watched TVs at schools and community centres, and they listened closely as Prime Minister Stephen Harper prepared to deliver an apology on Wednesday for the horrible treatment of aboriginal children at residential schools.

And then the historic apology was spoken. The reaction came shortly after from aboriginal leaders who had gathered in the House of Commons. They spoke earnestly and directly to Harper and to other politicians.

"The memories of residential schools sometimes cuts like merciless knives at our souls. This day will help us to put that pain behind us," said Phil Fontaine, national chief of the Assembly of First Nations.

Hundreds waited on the lawn at Parliament Hill to listen to the tone of Harper's voice and search for sincerity, as 11 aboriginal leaders, some in traditional clothing like Fontaine, sat in a circle in front of the Speaker in the House of Commons, a rare happening during what CBC-TV called simply "The Apology" on its broadcast headline.

Harper called the schools a "sad chapter" in the country's history. The government, he said, recognizes that the assimilation of aboriginal children was wrong and "has caused great harm and has no place in our country." The policy was profoundly damaging to the language and heritage of Aboriginal Peoples, said Harper, who added that the schools' legacy includes social problems that persist in communities today.

"We apologize for having done this," he said, later asking for forgiveness.

After Harper said he was sorry, some people outside the Parliament Buildings began to cry and wiped tears from their eyes.

"Today, Canada comes face to face with one of the darkest chapters of its history," said Liberal Leader Stéphane Dion just moments after Harper finished

his speech, as each federal political leader got a chance to speak. "Parents and children were made to feel worthless."

For too long, governments refused to recognize the tragedy, Dion said, adding that the Liberals were in power for much of the time the schools were in existence and offering, too, an apology for a system that he said was built to punish aboriginal Canadians.

Bloc Québécois Leader Gilles Duceppe said it was impossible to erase the scars but the apology was necessary. He urged the government to follow it with concrete action.

It's been a "Canadian disgrace" that the government has not backed the United Nations Declaration on the Rights of Indigenous Peoples, Duceppe said, getting a loud ovation.

New Democratic Leader Jack Layton, who was clearly emotional, said that he was sorry for one of the most shameful parts of Canadian history and that it was a time now to live together on an equal footing. He said that each survivor of the residential schools should receive the recognition that they deserve.

## **'Achievement of the impossible'**

And then it was time for the aboriginal leaders gathered at the House of Commons to speak. Initially, they were not going to speak in the House, but politicians decided to allow them at the last minute.

"This day testifies to nothing less than the achievement of the impossible," Fontaine said.

"Never again will the House consider us the 'Indian problem' just for us being who we are," he said. "Finally we heard Canada say it was sorry."

He acknowledged much more is to be done but that it was a "new dawn." It is now possible, he said, to end the "racial nightmare" together.

Patrick Brazeau, of the Congress of Aboriginal Peoples, called it a historic day and a positive step forward and thanked Harper for doing something his predecessors had not. He said he was proud to be an aboriginal Canadian.

Mary Simon, president of Inuit Tapiriit Kanatami, the national Inuit organization, spoke in Inuktitut to show that the language and culture are still strong, she said. Simon said that she dreamed of the day an apology would come and thought it might never happen, and that the pain and scars will still be there, but a new era has begun. Dignity, confidence and respect must be at the forefront of future efforts, she said.

Beverley Jacobs, president of Native Women's Association of Canada, told the House that residential schools took away the matriarchal system but it is coming back. She thanked the government for its apology.

"But in return, the Native Women's Association wants respect," she said, getting a standing ovation in the House.

## **A day to remember**

Hundreds gathered to watch the apology at the University of Winnipeg, including Kelly Houle, who listened closely as the prime minister spoke.

She didn't attend residential school, but her late mother did. Houle said she accepts the apology, but it does not erase painful memories.

"The full story of the residential school system's impact on our people has yet to be told," said Grand Chief Edward John of the First Nations Summit, an umbrella group of B.C. First Nations.

"The responses to the apology are both individual and collective. It is extremely important that we respect the many survivors who, in their own discretion and time, will consider the prime minister's apology and determine how, in their own interest, each of them will deal with it. Collectively, we celebrate and stand on the dignity of who we are and celebrate our survival," John said in a release issued by the First Nations Leadership Council, which includes a number of aboriginal groups in B.C.

"Our first thoughts today are for our elders," said Anishinabek Nation Grand Council Chief John Beaucage of Ontario. "Many of them have suffered lifelong physical and emotional pain because of their residential school experiences.

"We are so proud that many Anishinabek lived long enough to hear Canada's apology to them. But the true test of Mr. Harper's words will be his government's actions to help our children have a better future than their parents and grandparents."

Each of the thousands who waited to hear the apology has her or his individual story.

Diane Louis, from the Okanagan Indian Band near Vernon, B.C., spent five years at the residential school in Kamloops, B.C., and most of her life recovering from what happened there. Louis said it started on the first day, when she was taken from her grandmother in a cattle truck.

She spent decades trying to relearn her language because she wasn't allowed to speak it.

Herman Alpine, who spent his childhood at the St. Eugene residential school near Cranbrook, B.C., said the abuse started the day he arrived, when a priest yanked his long hair and cut it off, causing him to live in constant fear after that. He was strapped after speaking his own language, and said he suffered sexual abuse at the hands of other students, abuse that was overlooked by the priest. In Nova Scotia, First Nations people retraced the steps to the site of a residential school in Shubenacadie, which 2,000 Mi'kmaq and Maliseet children from around Atlantic Canada were forced to attend until 1968.

In St. John's, they gathered at the Native Friendship Centre to watch Harper speak. Aboriginal Canadians also gathered in Iqaluit and Yellowknife.

In Winnipeg, the Assembly of Manitoba Chiefs hosted an event that featured performers who are children or grandchildren of residential school students.

Outside of Edmonton at the River Cree Resort, people gathered to watch the apology at an event that featured an aboriginal comedian, singing and hoop dancing, as well as grief counsellors.

The residential schools were overseen by the Department of Indian Affairs and looked to force aboriginal children to learn English and adopt Christianity and Canadian customs as part of a government policy called "aggressive assimilation."

From as early as the 19th century to 1996, there were about 130 schools in Canada, in every territory and province except Newfoundland, Prince Edward Island and New Brunswick.

The Inuit in Labrador were represented by three members who flew to Ottawa to hear the apology in person at Parliament. They were in a unique situation, though, as a boarding school in North West River, in central Labrador, has not been recognized by Ottawa as a residential school because it was not operated by the Canadian government. And they were not formally invited to Ottawa for the apology.

"We're probably not feeling the same as the other people. The apology is not intended for us," Nora Ford said in Happy Valley-Goose Bay on Tuesday, as she prepared to board the flight to Ottawa.

## **Politics of an apology**

Ontario Premier Dalton McGuinty said an apology was needed in order for the country to move on. He told the Canadian Press that "this is an important way for us to make some of that right."

Reaction from commentators in the national media varied, with much of it focusing on the political aspect of the apology.

Don Martin, writing in the National Post on Monday, before the apology, said:

"Compared to the Chinese head tax or Japanese internment camp apologies, this will elevate grovelling to an art form by a Parliament that has already had plenty of experience pleading for forgiveness on this file."



Jeffrey Simpson, a columnist with the Globe and Mail, pointed out Wednesday it was the Harper government that "killed the multibillion-dollar Kelowna Accord that would have helped natives cope with real problems."

He added that "it will be a curious event for those who remember that the antecedents of the Conservative Party never spilled their guts" for Canada's Aboriginal Peoples.

A Toronto Star editorial said: "Harper's apology ought to compel Canadians to look critically and unflinchingly at their past and help set the relationship between aboriginals and non-aboriginals on a better path."

The editorial later said: "This unspeakable legacy is still playing out in aboriginal communities across the country in the form of suicide, substance abuse, family breakdown and despair."

## Appendix B

### Autobiography

The main purpose of this assignment is to provide an opportunity for self-expression in writing and art.

#### Collage

Use pictures from magazines and other print media to create a collage that reflects you. It could include your interests, hobbies and other aspects of your personality.

#### Childhood

Write a paragraph about each of the following topics:

- Birth Information      Where and when were you born? How did your parents choose your name?
- Family Information      Describe your family. How many people? What do they do at work or school or home?
- Earliest Memories      Describe a vivid memory you have of a time when you were very young.
- Favourite Things      What was your favourite toy or object to play with? Why was it so special?
- Proud/Embarrassing Moments      Describe something you did as a young child that you are either really proud of or really embarrassed about.

#### Now

- Personality      List 5 adjectives that describe your personality. Explain why you chose each one.
- Virtues and Vices      Explain your best characteristic (virtue) and your worst characteristic (vice).
- Friends      Who are the people in your life you care about? Why are these people your friends?
- Activities/Interests      Describe your 3 favourite things to do in your spare time.
- I believe statement      What do you think? Start your statement with I believe...

#### Future

If I were to see you in 20 years, what would you be like?

- Appearance      Describe what you think you will look like as an adult.
- Career/Education      What will your job be? If you will still be in school,

- Living where? what will you be studying?  
What city will you live in? What type of house / apartment will you have?
- Changes from now How else will you be different? Will your personality change? How about your interests? Will you still like the same things you like now?

<b>Creative</b>
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This is your personal page where you can express yourself in any way you choose. Some ideas include writing poetry or a piece of fiction. You can also include artwork of any kind and / or photos that tell the story of your life.

(Adapted from a worksheet created by J. Strachan, 2006)

## Appendix C

### Getting to know your child and family

Student's Name: \_\_\_\_\_

Something I would like to tell you about my child:

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What I would like my child to learn this year:

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Things that my child finds difficult or challenging:

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How I would like to be involved in my child's education this year:

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Suggestions for field trips, guest speakers, topics, activities, school clubs:

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Thank you for taking the time to complete this questionnaire. Please have your child return it to me as soon as possible.

(Adapted from a worksheet created by M. Richard, 2004)

## Appendix D

### European Explorer Celebrity or Canadian Contributor to Space Science

For this project, you will need to choose an important historical figure from among the European explorers. For example, Christopher Columbus, John Cabot, Jacques Cartier, Samuel de Champlain, Martin Frobisher, Henry Hudson, Thomas Button, William Baffin, Thomas James Pierre Esprit Radisson, Médart Chouart, Sieurs des Groseilliers, Henry Hudson, Alexander Mackenzie, Simon Fraser, David Thompson or any other that may interest you.

You will need to research your explorer and find personal information such as his date and place of birth, when he died, what were his skills, what voyages he made, what were some of his most significant accomplishments and any other interesting facts about him.

The goal of this project is for you to “become” this famous historical figure and dress and act the part. You will need to present your historical figure to the rest of the class in role. You can tell the class about an important adventure, voyage or discovery you made. For example, if you choose John Cabot, you might recreate your return to England and your conversation with the King about what you discovered.

For this project, you may prefer to research Canadians who have contributed to space exploration. You may select from among Marc Garneau, Roberta Bondar, Chris Hatfield, David Levy, Helen Hogg, Bjarni Tryggvason or someone else whom you are interested in.

Similarly, you will need to research a Canadian who has contributed to space science. You need to find out background information about the person. For example, gather information about his/her education, how he or she became involved in space science and technology. You will need to find information about the major contribution(s) he / she made to space science and technology. You should also discuss what technological advances have resulted as well as the impact these have made. You may also add any additional or interesting information.

Your presentation should be about 5-10 minutes in length.

You will also need to submit a two-page, double spaced written summary of your

1. **Historical figure's** life, adventures, voyages, etc. with a short biography. Include a hand drawn and coloured illustration of him or a picture as well as a map that shows his travels.

OR

2. **Canadian space contributor's** life, education, space explorations, major contributions to space science, etc. with a short biography. You should also provide a hand drawn and coloured illustration of him / her or a picture as well as an illustration or picture of his / her technological contributions to space exploration.

(Developed by A. Neves, 2007)

## Appendix E

### Classic Kundalini Yoga Poses

1. **Bow Pose.** Lie on your stomach, hold your ankles and pull up, raising your thighs and head as high as possible, creating an arch in your spine. Hold this position with long, deep breathing for 2 to 3 minutes. This posture brings peace to the mind.
2. **Bridge Pose.** Place your palms and feet firmly on the floor and keep your arms and legs at right angles to the floor without bending the elbows. Ensure that your body (from your knees to your shoulders) forms a straight line parallel to the floor. Hands are shoulder width apart; knees and feet are also the same distance apart. Hold this pose for 1 to 3 minutes, then breathe long and deep for another 1 to 3 minutes. This pose works on the nervous system.
3. **Camel Pose.** Come up onto your knees with your thighs perpendicular to the floor. Arch your back and hold onto your heels. Let your head fall back, let your hips move forward and hold this pose with long, deep breathing. Camel pose adjusts the reproductive organs.
4. **Cat Pose / Cow Pose.** Place your arms and legs firmly on the ground so that you are on all fours, with your hands directly under your shoulders and your fingers pointing forward. The body is positioned like a table, with everything at right angles. Heels are together; knees are shoulder width apart. The arms (from shoulders to wrists) are kept straight. The legs (from knees to hips) are also kept straight and do not move. Inhale as you lift your head up into cow; exhale when your head goes down into cat. Inhale and think SAT, exhale and think NAM. Sat is “truth”, Nam is “name” or “identity”; Sat Nam means that we are one in spirit. Linking the breath to Sat Nam is an easy way to focus one’s attention and become more self-aware. Start slowly and increase the pace until you can alternate rapidly between a slumped spine (cow) and a raised spine (like an angry cat). Continue this sequence for 1 to 3 minutes. These exercises support the vertebrae in your spine.
5. **Child Pose.** Sit on your heels. Bring your forehead to the floor in front of you. Arms are relaxed at your sides with palms facing up, near your feet. Relax in this pose for 2 to 5 minutes. Child pose brings circulation to the eyes, ears, nose, and throat.
6. **Cobra Pose.** Place hands under shoulders. Point your fingers forward. Use your arms to press your upper body up and lock your elbows straight. Stare at a point on the ceiling without blinking. Hold for 1 minute with

long, deep breathing. This pose loosens up the spine and improves posture. It also works on your eyesight.

7. **Corpse Pose.** Lie flat on your back with your body is in a straight line (do not cross your ankles) and your palms turned upward. Lying in corpse pose helps to relax the body completely. To relax the mind as well, it is important to focus on your breathing thinking Sat as you inhale and Nam as you exhale. Hold this position for 5 to 10 minutes.
8. **Easy Pose.** Sit with your spine straight and legs crossed on a mat. Place the palms of your hands together at the center of your chest, fingers pointing upwards and slightly away from you. Press the sides of your thumbs lightly into the center of your sternum. Keep your palms pressed firmly together. Pull your chin slightly back to help straighten your spine. This pose is used to help improve concentration.
9. **Locust Pose.** Lie on your stomach. Clench your fists and place them under your hips, above the leg-joints. Hold your heels together. Keep your chin on the floor, raise your legs up off the floor and hold this position using long, deep breathing for 1 to 2 minutes. This pose helps loosen the lower spine, relieves tension in the lower back and brings circulation to the brain.
10. **Shoulder Stand.** Lie on your back. Raise your legs up to 90 degrees and then lift the entire torso up to 90 degrees so that the body forms a straight line from shoulders to toes. Support the weight of your body on your elbows and shoulders using your hands to support your lower spine. Press your chin into your chest. Hold this position for 5 minutes. This pose releases pressure on all the organs and stimulates the thyroid gland. (Khalsa, 1996)

## Appendix F

# MATH TRAIL



**Come and explore the school community by foot  
And do so mathematically!**

<b>What should be in your travelling Math kit</b>
---------------------------------------------------

- ✓ Clipboard / notebook (surface for writing)
- ✓ Pencils (few colours)
- ✓ Ruler (in cm)
- ✓ Measuring tape (in cm)
- ✓ Watch
- ✓ Graph paper
- ✓ Trundle wheel

\* = Further work required in the classroom

(Developed by A. Neves, 2006)



## Introduction

Welcome! I hope you enjoy the mathematical tour of our community.

The activity that you will be participating in today is commonly called a Math Trail. Think of it as a guided walk with mathematics questions and you will have a good idea of what to expect today. At each stop on the Trail, you will be presented with math problems related to products in stores, to art, design and architecture, urban planning and other things encountered along the route. Some of the questions are meant to be answered today while others are to be worked on after the Trail. Questions that are to be completed later on in the classroom are preceded by an \*. For the questions that are to be done later, be sure to record any requested measurements or observations. Without this information you will have trouble coming back to the questions after the Trail.

You will probably encounter questions where it is not clear what you are supposed to do and I urge you to discuss possible strategies with members of your group and with your Leader. Give every question a good try, but if you find that you are getting bogged down and getting nowhere, the best thing to do is to move on to the next question. The unanswered questions will get done at a later date so don't spend too much time spinning your wheels. Move on!

One of the main goals of this project is to give you an opportunity to see, do and appreciate mathematics in a setting outside of the classroom and away from your textbook. The Trail has been designed to help you look at things differently and to think in a more creative manner. By the end of the Trail you will have seen many examples of how mathematics is used in the world around us. The practical nature of this project should provide you with additional reasons for why mathematics is important and for why you need to learn as much as you can about this beautiful subject.

Math Trails are a novel approach to teaching and learning mathematics. Many students all across America are going off on a number of Trails set in a variety of locations all across Canada and the United States. Students really enjoy the outings and learn a great deal of mathematics as a result. It is my hope that you will too. I believe that through this kind of activity you will change your attitude towards mathematics and that you will derive many benefits from this Trail.

I have developed this Math Trail as a review of all the major concepts taught in the Grade 4 and 5 Math curricula. I have decided to take Mathematics outside into the community to show you how mathematics is all around us and is connected to our world. I hope you enjoy this opportunity to explore mathematical concepts in and around our school community. Remember to have fun, think creatively and work together to solve the questions. Also remember to behave responsibly and remember that your behaviour is a reflection on our school in the community. Enjoy!!!

## The Trail

For all the questions in this Math trail it is expected that you will include some work to show how you arrived at your answers. As you walk with this booklet in your hands, it is going to be rather difficult for you to write your notes in an organized and coherent manner. One suggestion is for you to use the back of the pages for your preliminary work today and then at a later date you can use the space given for each question for your final answers.

### Question 1. How old is our school?

Walk down the stairs to the main floor. Walk outside the building through the main entrance. Low to the ground, on the brick wall facing the west side, you will find the date when the school was erected.



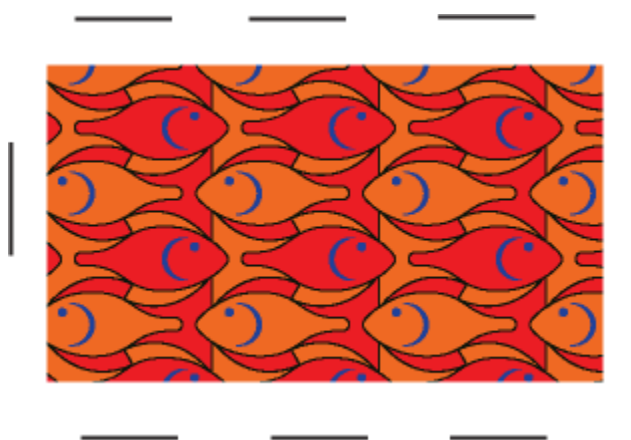
Using only your mental math skills, calculate how old the school is. Explain how you found your answer.

## Question 2. Life is a Picnic

Continue the Math trail by walking east along East St. and enter the fenced in area where the picnic tables are located. Although life is a picnic, this question certainly is not, so take your time and use a T-chart or diagram to help you.



Eight people can sit at each table using stools from the storage room. Refer to the one-table configuration below.



When two of these tables are put together, they can seat 14 people.

- How many people can you seat if you put three picnic tables together end to end?
- Four?
- All five tables?

d) What about 100 tables?

\*Explain how you were able to find your answers. How does the number of people change as the number of tables increases?

### Question 3. Fire away!

Just outside the picnic area, beside the sidewalk, there is a fire hydrant.



- a) Estimate the distance between this fire hydrant and the next fire hydrant.
- b) Predict how many fire hydrants you would expect to find if you walked all around the block (east along East St., north along North St., west along West St., and south along South St.)
- c) Check your group's predictions by walking around the block once and counting the number of fire hydrants you see (on either side of each street.)
- d) \*Why are there fire hydrants at regular intervals?
- e) \*Do you feel that the interval between fire hydrants is a safe one? Why or why not?

## Question 4. Happy Garden

Walk east along East St. Cross the street and enter the Happy Garden Centre.



Sarah went to shop for flowers at Happy Garden. She bought 2 carnations.

In the same centre, Nathan bought 9 roses and paid \$36.00.

If the prices for roses and carnations are the same, how much did Sarah pay for the carnations?

Explain how you found your answer.



## Question 5. Happy farms - Juice up your life

Go into Happy Farms. Once you have passed the entrance stalls, turn right and head for the JUICE section.



Examine the cost of Tropicana Juice. There are a variety of flavours and different sizes of containers. Which of the juices offers you the most value for your money? That is, in terms of the volume content and cost, which juice jug, carton or box offers you more juice for the least amount of money? Explain how you found your answer.

## Question 6. Happy farms - Snap, Crackle, Pop ... Numbers!

In Happy Farms, find the aisle that has cereals.



- a) On the shelves, locate the three cereals: Froot Loops, Nesquik and Lucky charms. Of these three, which is the best source of protein and has the least amount of fat?
- b) Select 5 other cereals on the shelf and examine their nutrition facts. Which cereal is the healthiest choice in terms of protein, mineral and vitamin content with a low percentage of sugar and fat?
- c) How were you able to compare your cereal choices and how did you select the healthiest choice for your family?
- d) \*If your family ate one box of the cereal you selected in (b) every 2 weeks, estimate the cost of buying that cereal for your family over a period of one year.

## Question 7. O'Canada

Exit Happy Farms. Walk east to the end of East St. On the northwest corner of East St., along Happy Farms' wall, high above your head, you will see a number of flags with a maple leaf.



- a) How many lines of symmetry can you find? Draw them above.
- b) Which shapes are congruent?
- c) \*Below design your own flag where there are lines of symmetry, congruent as well as similar shapes.
- d) \*Draw the reflection of your flag.
- e) \*Draw your flag after a  $90^\circ$  clockwise rotation.



## Question 8. Stop Idling

Go to the northwest corner of East St. and Carnation St. Stand just outside Happy Farms.



- a) Stand there for several minutes and record the number of vehicles that you observe idling.
1. Record how long the vehicle idles in minutes.
  2. Note the make and model of the idling vehicles.
  3. Note the gender of the driver.

Record the data in a tally chart.

- b) \*Draw a graph to record the data you collected. Be sure to include all the elements of a graph such as
- ✓ Title
  - ✓ Appropriate scale
  - ✓ Labels for both axes

\*\*Be sure to select the most appropriate graph.

- c) \*Write some statements about what the data tells you.

d) \*From the data you collected and analyzed, is idling a problem outside of Happy Farms? Please support your answer with information from your graph.

## Question 9. What a pane!

Walk to the back of the school and stand in front of the windows that face the primary play structure. This question is going to be a “pane” so take your time.



Stand back and look at the arrangement of panes of glass. Count the number of rectangles that can be found in each window.

- a) Suppose that you have eight windows with a similar design. How many rectangular windows do you need to purchase?
- b) \*Now imagine that a new school is being built with 100 of these windows. How many rectangles would be in the arrangements?
- c) \*Develop a general rule for counting the total number of rectangles in this type of window design? Explain how you found your answer.

## Question 10. Sand pit

Go to the school yard. Walk towards the sand pit. Above your head, look at the design on the wooden hut that covers the pit.



- a) Draw the next five elements of the pattern.
- b) Describe the pattern using your own words.
- c) \*Draw and describe a pattern that you might like to see in the schoolyard.

## Question 11. Parking Lot

Walk towards the school parking lot at the rear of the school facing Daffodil Ave.



- a) Estimate the perimeter of the parking lot. Is your answer reasonable? Why or why not?
- b) Calculate the perimeter of the parking lot. Explain how you found your answer.
- c) Estimate the area of the parking lot.
- d) Calculate the area of the parking lot. Explain how you found your answer.
- e) \*If the student population increased significantly and ten new teachers had to be hired, how much larger would the parking lot need to be? Explain how you arrived at your answer.

## Question 12. Take your best shot!

Go to the basketball court located in the schoolyard, facing Daffodil Ave. Each member of your group will throw a basketball into the hoop 12 times.



- a) Predict the probability that he / she will score as a fraction. For example,  $\frac{3}{12}$ ;  $\frac{4}{12}$ ;  $\frac{5}{12}$ ;  $\frac{7}{12}$  etc
- b) Carry out an experiment to test your prediction. Record your results in a table.

Name of student	Prediction of number of baskets scored $n/12$	Number of baskets actually scored (record as a fraction) $n/12$

- c) \*What is the average number of baskets scored by your group members. Explain how you calculated this answer.



### Question 13. School Apparatus

Walk to the junior playscape in the west side of the school yard.



- a) Estimate what would be a safe number of students to play on the school apparatus at the same time.
- b) What fraction of the school population in grades 4-6 can play on the apparatus at recess time?
- c) \*Explain what factors you considered before arriving at your answer as well as how you obtained your answer.

### Question 14. United we stand!

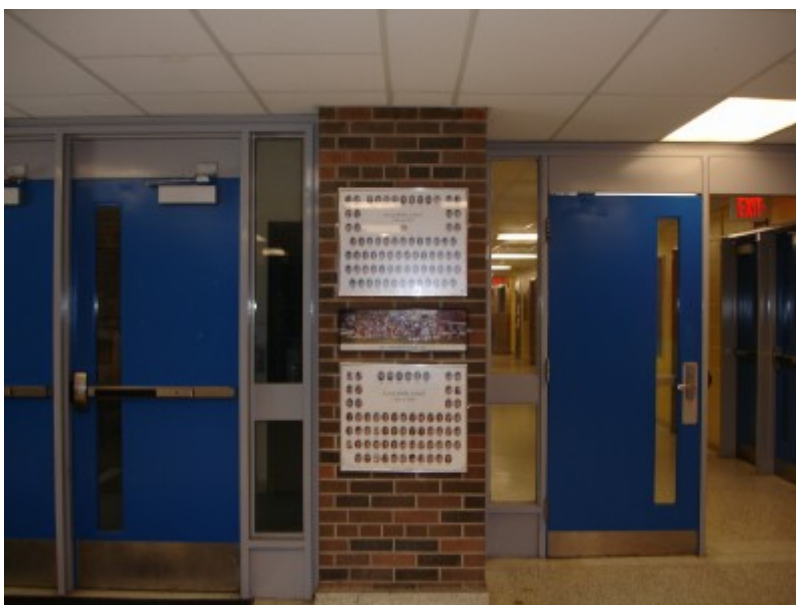
Walk back towards East St. under the beautiful bridge that joins both schools.



Without actually measuring, estimate the height of the bridge in metres. Explain how you found your answer.

## Question 15. Our Grads

Walk back inside the school, through the main entrance. In front of the Principal's office, there are several photos. (Remember to be especially quiet so as not to disturb anyone in the office. SHHHHHHHHHHHHHHHHH!!!!!!)





- a) Suppose that it is necessary to take down all of these photos and separate them for cleaning. Imagine they had to be placed back on only one wall, the wall opposite the main office which has a mural drawn on it. How many different ways could you arrange the photos? Draw all the possible arrays.
- b) Considering the space available, what is the best way to arrange the photos? Explain your answer.

## Question 16. Time is ticking

In the main office, just through the door, there is a clock above the receptionist's desk. Without opening the door or disturbing the office staff in any way, look at the time.



- a) What time is it using the 12-hour system? Using the 24-hour system?
- b) Estimate the size of the angle between the minute and the hour hands?
- c) At what time will the minute and the hour hands form
  - 1. an acute angle
  - 2. a right angle
  - 3. an obtuse angle
  - 4. a straight angle
- d) When was the last time the minute and hour hands overlapped? At what other times will both hands of the clock overlap?
- e) \*If you eat supper at 6:30 p.m. How much longer is it until dinner time?

**\*Question 17. Tell me the time**

In the puzzle given below, each letter represents a digit from 0 to 9. Any given letter stands for just one digit. In other words, the value of **T** cannot be say 3 in one place and 9 in another place. Two different letters cannot stand for the same digit. So **E** and **L** can't both be say 7. Also the first letter of any word cannot be 0. There are 65 solutions to this puzzle. Find as many of them as you can. Explain your solution(s).

$$\begin{array}{rcccc}
 \mathbf{T} & \mathbf{E} & \mathbf{L} & \mathbf{L} & \\
 & & \mathbf{M} & \mathbf{E} & \\
 & \mathbf{T} & \mathbf{H} & \mathbf{E} & \\
 \hline
 \mathbf{T} & \mathbf{I} & \mathbf{M} & \mathbf{E} & 
 \end{array}$$

(Adapted from a question created by R. Lancaster, 2001)

## Question 18. Pal of mine

Travel (very, very quietly) around the school (both East and West buildings).



- a) Which room numbers are palindromes?
- b) What is the percentage or ratio of numbers that are palindromes to numbers that are not? Explain how you found your answer.

### **\*Question 19. More questions to ponder**

This marks the end of the prepared questions for this Trail. However, this is not the end of the Trail. It is now your turn to develop Math trail questions that can be used by other groups in the class or even other classes in the school. The experience of having done some or all of these questions should make it easier for you to come up with questions of your own.

Create five mathematical questions related to any strand in the mathematics curriculum or any location covered in the Math trail.

With your group, you will need to develop your mathematical questions as well as solutions. Try to be as specific and clear as possible.

Later on, you will be asked to share your questions with the rest of the class in a brief oral presentation.

## **Be creative and challenge your mathematical mind!!!**